



EEFIG

ENERGY EFFICIENCY

FINANCIAL INSTITUTIONS GROUP

Launch and facilitate the implementation of a new EEFIG Working Group on “Energy efficiency financing post 2020, in the framework of the next Multiannual Financial Framework (MFF) 2021-2027”
Final report

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Launch and facilitate the implementation of a new EEFIG Working Group on “Energy efficiency financing post 2020, in the framework of the next Multiannual Financial Framework (MFF) 2021-2027”

FINAL REPORT



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LAUNCH AND FACILITATE THE IMPLEMENTATION OF A NEW EEFIG WORKING GROUP ON "ENERGY EFFICIENCY FINANCING POST 2020, IN THE FRAMEWORK OF THE NEXT MULTIANNUL FINANCIAL FRAMEWORK (MFF) 2021-2027"

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Executive summary

The background for the project "Launch and facilitate the implementation of a new EEFIG Working Group on Energy efficiency financing post 2020, in the framework of the Multiannual Financial Framework (MFF) 2021-2027" is the urgency to scale up EE investments to meet the climate and energy targets and to identify potential actions, strategies and initiatives to scale up the EE financing. In this context, the Commission's objective is to investigate how public finance can best be used to scale up energy efficiency investments, and to deploy the public funding available in the context of the MFF 2021-2027 in the most efficient manner i.e. mobilising additional energy efficiency funding through the involvement of the private sector and through this maximising the overall impacts.

The European Green Deal is the EU's growth and recovery strategy that aims to transform Europe into the first climate neutral continent by 2050. Energy efficiency is a key area of action, without which the full decarbonisation of the EU economy cannot be achieved. Recognising energy efficiency (EE) investments as the most cost-effective and sustainable way towards climate neutrality, EE investments should be increased in all sectors of the economy. The energy efficiency first principle should be applied across all sectors and policies. With the situation in Ukraine, as stated in the Communication REPowerEU, the need for reinforced incentives to improve energy efficiency is even more pertinent to reduce dependence on fossil fuels.

The specific objectives of the work were to:

- > Identify main barriers, challenges and opportunities in the energy efficiency financing and investment market
- > Identify a list of actions, initiatives, strategies and assess their potentials in terms of effectiveness to upscale energy efficiency investments
- > Produce an updated list and assessment of the most appropriate funding mechanisms in the EU MFF 2021-2027
- > Analyse and draw conclusions on how the financial architecture of the MFF 2021-2027 works
- > Prepare the final working group report with conclusions and recommendations.

An EEFIG Working Group was set up with representatives of Financial Institutions, National Promotional Banks and representatives from European and Member State institutions. Significant participation of experts from relevant MFF funding sources, as well as EU/Member State representatives involved in the RRF and ERDF/CF funding and stakeholders with involvement in PF4EE and Horizon Europe was prioritised. The Working Group members shared their experiences with use of specific MFF related financial instruments, their delivery models and what have been the barriers hitherto and what are the expected

barriers and challenges going forward. With agreed emphasis on the RRF and ERDF/CF, the Working Group has identified relevant possible actions and initiatives to significantly scale up energy efficiency investments as part of the funding sources for the current 2021-2027 Multiannual Financial Frameworks and later upcoming Multiannual Financial Frameworks.

The conclusions from the Working Group focus on the importance of blending public and private funds, stresses the need for technical assistance to complement funds and emphasizes the role of EU regulation and voluntary initiatives.

First, limited public funds should act as a catalyst for private finance and the risk of crowding out private finance should be minimized. This calls for increased use of blending of private commercial loans with public grants, public guarantee facilities, and public funds for enabling activities including facilitation and advisory. Lack of effective mechanisms to combine financing sources from grants and financial instruments was repeatedly identified as a major implementation barrier for the MFF 2014-2020, where several NPBs have faced difficulties in combining support with EU structural funds, e.g. due to legal framework challenges and eligibility criteria. The 2021-2027 MFF has simplified and extended options for combining financial instruments and grants and allows also for disbursement of the combined support directly to final recipients. The Commission and EIB initiative on a model financial instrument with a grant component ("EEFI") combining grants with loans in a single financial instrument operation is expected to be instrumental for rolling out further energy efficiency investments at Member State level at a higher speed.

Secondly, financial instruments/grant combination and increased financial instrument uptake cannot stand alone. Thus, increased focus is needed on the actual preparation of project pipelines, investor commitments and implementation at Member State level. Complementary support in the form of technical assistance (TA) and advisory support grants for developing project pipelines of mature projects for implementation, as well as for administration of projects is thus very much needed to turn this situation towards more co-financing and private sector finance in general. Best practices on TA include 'centres of excellence', ELENA TA facilities or one-stop shop (OSS) as entry points at national or regional level, along with the ability to easily combine financial instruments and grant products with separate guarantee instruments.

Thirdly, the Working Group emphasizes the role of EU regulation and voluntary initiatives. The regulatory ecosystem for sustainable finance (the EU Taxonomy Regulation, the Sustainable Finance Disclosure Regulation SFDR, and the Corporate Sustainability Reporting Directive CSRD) is an important framework for channelling private sector investments towards sustainable activities. Separately, mainstreaming of the EE 1st criteria in public and private financial institutions is an important policy objective, but embedding the criteria in regulatory frameworks such as the EU Taxonomy may require separate efforts for priority activities such as renovation of existing buildings. In terms of mobilising private sector financing for buildings, it will be very important that public FIs (EU, international and public national financial institutions, including

national promotional banks), and private FIs (banks, pension funds, insurance companies, large asset managers and other specialised investors) all provide a credible commitment to integration of the EE 1st principle in the lending and investment policies and operational activities. A source of inspiration for how this can be done is the actual implementation by EIB of the Energy Efficiency First Principle.

Last, the Working Group found it premature to assess impacts of the MFF 2021-2027 architecture when programmes under the MFF (ERDF) and the Recovery and Resilience Plans (RRPs) were still under development at the Member State level and being negotiated with the Commission services. The initial view of the Group is that despite the scaling up of funds dedicated to the energy efficiency area, the different actors tend to undertake their work the same way as usual and still rely heavily on grants. Rather, the Working Group encourages the Commission to address energy efficiency investment impacts under the current 2021-2027 architecture and Member States' progress towards the Energy Efficiency targets as a thematic evaluation theme at the Mid-term Review of the current MFF in 2023. Based on this, the Commission may consider whether energy efficiency needs further prioritization at EU level. Such additional measures to be considered may cover, but not limited to, potential reallocation measures for energy efficiency investments at the MFF level; launching of specific sector programmes dedicated to EE targets vested in the EPBD and EED; or a specific EU facility or bank dedicated to be market maker for energy efficiency projects identified at Member State level. In parallel with potential EU-level steps, further measures should include increased technical assistance for project- and portfolio preparation measures, for instance through existing and planned one stop shops at Member State level. Such measures can support Member State actors in channelling EU funds as enablers for mobilisation of private funds. The biggest impact can obviously be obtained by the proposed measures if initialised in the current MFF 2021-2027, however the suggested measures are equally relevant for the next phase of the MFF from 2028-onwards to mobilise private sector finance.

Based on the conclusions, the work of the EEFIG Working Group has led to the following recommendations for the MFF 2021-2027 and beyond, targeted to the Commission, the Member States and the Financial Institutions:

European Commission:

- > Conduct a targeted thematic energy efficiency Mid-Term Review of the MFF 2021-2027 focusing on energy efficiency investment challenges and impacts; Member States' progress towards the Energy Efficiency targets using the MFF, and how to further facilitate the use of EU funds for the mobilisation of private funds, as part of the overall Mid-term Review of the MFF in 2023.
- > Consider whether energy efficiency needs further prioritization at EU and MFF level.

- > Develop guidance for Member States on designing a good financing architecture that reflect the differences in financing for different types of assets and avoid over subsidisation, leading to crowding out of commercial financing.
- > Develop roadmaps on how to unlock private sector investments in energy efficiency for both Member States and market actors and on how to facilitate navigation as well as guidance on combining funding sources under the MFF 2021-2027.
- > Encourage EEFIG to focus more on the MS/national level and MS public and private actors as part of the vision for a new Energy Efficiency Financing Coalition presented in the Communication EU 'Save Energy' as part of REPowerEU.
- > Ensure consultation on potential new models for financial instruments with EEFIG members including NPB Association and Group of PF4EE banks to draw on experiences from the MFF 2014-20.
- > Focus on de-risking higher-risk financing (poorer households, SMEs, emerging technologies).
- > Assess why absorption of funds is low and make relevant adjustments or provide guidance to Member States on how to increase absorption.
- > Consider specific aspects to be addressed in the different sectors and whether targeted partnerships can be beneficial for specific sectors such as industry and data centres.
- > Develop guidance for Member States on, and examples of, clear/simple communication tools/methods to promote EE investments at the MS/regional/local level.
- > Consider options for regulatory vesting of the EE 1st criteria in relation to sustainable financing for renovation of existing buildings.
- > Create an in-depth overview of private energy efficiency financing across the Member States in the framework of the EED and EPBD recast to mitigate the current gap of private sector EE financing data in the EU27.

Member States:

- > Focus on maximising impact of available EU funds rather than degree of support for individual projects.
- > Ensure the implementation in practice of the EE1st principle for public investments and public lending and investment policies and operational activities.

- > Use grant components to improve the project preparation and encouragement of deeper renovations including improving affordability for low-income households.
- > Engage with FIs in developing investment strategies and work closely with NPBs and national commercial banks on blending commercial finance with public grant or guarantee elements and scaling up EE financing, e.g., through facilitation and support provided by one stop shops.
- > Consider involvement of NPBs at an early stage, e.g., in the preparation of Partnership Agreements and Operational Programmes, as relevant.
- > Gather public data and analyse data to provide insights into the kinds of investments that pay off, the impacts on risk of different EE investments as it helps to de-risk.
- > Consider developing national roadmaps on financing, i.e. how much support and in what form to provide it, its evolution in time, and also how to mobilise private financing

Financial Institutions:

- > Simplify existing products and communicate better with customers to nudge larger uptake of EE relevant products.
- > Introduce mortgage products targeted towards energy renovation of buildings for potential new homeowners/clients upon purchase of home and existing clients already with homes.
- > Speed up the implementation in practice of the EE1st principle as to private sector investments.
- > Tag energy performance standard of underlying assets.
- > Develop targeted financial products for EE renovation of buildings to make them more energy performant.
- > Consider minimum savings thresholds to determine the amount of grant to ensure more effective use of public resources.
- > Work with national governments and NPBs on development of de-risking instruments such as blended financing and guarantees to mitigate credit risks related to especially low-income households and SMEs.

Work with national governments and NPBs on building EE portfolios and robust pipelines support Member States in Partnership Agreements and Operational Programmes as well as information and awareness.

1 Introduction

This final report has been prepared in the context of the assignment "Launch and facilitate the implementation of a new EEFIG Working Group on "Energy efficiency financing post 2020, in the framework of the next Multiannual Financial Framework (MFF) 2021-2027" (EC request for service N° ENER/C3/FV2019-477/02/FWC2018-464/11 under Single FWC ENER/C3/2018-464).

The **general objective** of the assignment is to prepare, set up and support the work of the EEFIG working group on "Energy efficiency finance post 2020, in the framework of the next EU MFF 2021-2027", focusing on the most appropriate EU funding sources and mechanisms for EE investments in light of their potential, notably the InvestEU programme; the Cohesion Policy Funds: ERDF and Cohesion Fund; Horizon Europe; LIFE; and the Recovery and Resilience Facility (RRF). Based on the outcome of the EEFIG Plenary meeting in February 2021 and the feedback from participants at the SR-11 pre-working group meeting held in March 2021 the approach and focus at Working Group level were further targeted towards the Recovery and Resilience Plans (RRPs) to ensure a swift implementation and absorption of planned energy efficiency measures in the RRP and, also, the European Regional Development Fund (ERDF) and Cohesion Fund (CF).

The TOR foresees this enabled through the following **specific objectives**:

- > **Identify main barriers, challenges and opportunities in the energy efficiency financing and investment market** and assess how these could be best addressed. The work will be based on already emerging findings from other EEFIG Working Groups in order to maximise synergies with existing EEFIG work and experiences.
- > **Identify a list of actions, initiatives, strategies and assess their potentials in terms of effectiveness to upscale energy efficiency investments** for the current MMF (2021-2027) and the next one (2028-onwards).
- > **Produce an updated list and assessment of the most appropriate funding mechanisms in the EU MFF 2021-2027** (for the different actions, initiatives and strategies identified). This will include a mapping of available sources of funding for energy efficiency in the MFF 2021-27, with detail and main objectives and features, including form and level of support, targeted beneficiaries and expected leverage (where data are available).
- > **Analyse and draw conclusions on how the financial architecture of the MFF 2021-2027 works** for the purpose of supporting the clean energy transition and the investment mobilisation that is needed to increase sustainable energy investments.

- > **Prepare the final working group report** with working group conclusions in response to the above questions leading to specific recommendations of an actionable nature.

The assignment has taken as a point of departure and baseline the Smart Finance for Smart Buildings Initiative (SFSB), as further described in the next chapter. The objectives and the work of the WG has also taken into consideration the REPowerEU, the European Green Deal and the Fit for 55 – package and its impact on the energy efficiency investment objective. The work of the WG has drawn on important knowledge from fi Compass and best practices at Member State level. The WG activities have also been coordinated with the other EEFIG working groups and have built upon the previous work of the EEFIG2 and EEFIG3.

This final report provides information on the work of the Working Group and its recommendations. In accordance with the ToR, the report contain:

- > A description of the work of the working group, with milestones and presentations of the meetings including the agenda and minutes of all meetings of working group meetings held including presentations.
- > An updated analysis of current barriers, challenges and opportunities for energy efficiency investments and a tentative list of recommendations for actions, initiatives and strategies that could be implemented in the framework of the MFF 2021-2027 and beyond and that could contribute in the most efficient way to the achievement of the energy efficiency target for 2030 by acting as a catalyst to leverage and trigger private financing from FIs, investors and final beneficiaries.
- > Conclusions on how the final architecture works for the purpose of clean energy transition and the investment mobilisation that is needed in terms of significantly scale up energy efficiency investments.

The final report is structured as follows:

- > **Chapter 2 Background and methodology**, presents a description of the problem and its main challenges, followed by the background and objectives which provides an overview of up-to-date knowledge on the topic (e.g. best practises in accessing EU budget support, combining/blending financial instruments and grants in the EE financing and investment market), as well as the method of work used for this assignment.
- > **Chapter 3 Funding sources for Energy Efficiency**, presents an overview of funding opportunities with a focus on InvestEU, Cohesion Policy Funds (ERDF/CF) and the Recovery and Resilience Facility (RRF) and the REPowerEU. The chapter also describes the possibilities for combination/blending of funds under the Common Provisions Regulation for 2021-2027 and the new EEFI model to support energy efficiency.

- > **Chapter 4 Mobilising partners and WG members**, reports on the mobilisation of the EEFIG community and other relevant market actors for the assignment. It also describes the WG composition and lists the key experts who contributed to this WG.
- > **Chapter 5 Working methods and deliverables**, provides a description of the working methods for the WG and the expected deliverables of the WG.
- > **Chapter 6** presents the **key conclusions** from the WG.
- > **Chapter 7** lists the **recommendations** from the WG as to possible actions, initiatives and strategies that could be considered for implementation in the framework of MFF 2021-2027 and beyond.

The **final presentation of the main results, conclusions, and recommendations** is included in Appendix A.

Overview presentation of the **Recovery and Resilience Facility – Leveraging Private Finance for Energy Efficiency** (presented under EEFIG SR-3) is included in Appendix B.

Analysis of the Member States' plans for financing Energy Efficiency through the **Recovery and Resilience Plans** as assessed by the Commission by early February 2022 attached in Appendix C.

2 Background and methodology

2.1 Description of the problem and main challenges

The European Green Deal¹ is the EU's growth and recovery strategy that aims to transform Europe into the first climate neutral continent by 2050. Energy efficiency is a key area of action, without which the full decarbonisation of the EU economy cannot be achieved. Recognising energy efficiency (EE) investments as the most cost-effective and sustainable way towards climate neutrality, EE investments should be increased in all sectors of the economy. Buildings alone are responsible for 40% of EU's energy consumption and 36% of energy-related greenhouse gas emissions. The urgency to scale up EE investments calls for an assessment of potential energy efficiency actions, strategies and initiatives to scale up the EE financing.

Given the limited availability of public funding and acknowledging that most of the EE investments will have to be made with private sector funding, making the best use of all funds available in the context of EU Multiannual Financial Framework 2021-27 is critical for reaching the current EU energy efficiency targets. Thus, as part of the Fit for 55 package, new measures on financial incentives, advisory tools, assistance instruments and guidelines are being introduced:

- > Member States shall, in line with their national building renovation plan and with a view to the transformation of their building stock into zero-emission buildings by 2050, provide appropriate financing, support measures and other instruments able to address market barriers and stimulate the necessary investments in energy renovations. For this purpose, Member States shall make best cost-effective use of national financing and financing available established at Union level, in particular the Recovery and Resilience Facility, the Social Climate Fund, Cohesion Policy Funds, InvestEU, auctioning revenues from emission trading pursuant to Directive 2003/87/EC (the amended EU ETS Directive) and other public funding sources.
- > Financial mechanisms, incentives and the mobilisation of financial institutions for energy renovations in buildings are crucial in national building renovation plans. To support mobilisation of investments, Member States are encouraged to promote the roll-out of enabling funding and financial tools, such as energy efficiency loans and mortgages for building renovation, energy performance contracting, fiscal incentives, on-tax schemes, on-bill schemes, guarantee funds, funds targeting deep renovations, funds targeting renovations with a significant minimum

¹ Communication from the Commission on the European Green Deal (COM/2019/640 final)
[EUR-Lex - 52019DC0640 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu/lexuri/ui.do?uri=COM%2F2019%2F640%2Ffinal)

threshold of targeted energy savings and mortgage portfolio standards and other actions to reduce the perceived risk of the investments.

- > Together with financing, setting up accessible and transparent advisory tools and assistance instruments such as one-stop-shops that provide integrated energy renovation services or facilitators, as well as implementing other measures and initiatives such as those listed in the Commission's Smart Finance for Smart Buildings Initiative, is indispensable to provide the right enabling framework and break barriers to renovation.

Russia's invasion of Ukraine and the general energy crisis stress the need for further reinforcing incentives to improve energy efficiency as well as considering more ambitious targets from those already proposed in the Fit for 55 package.² Most recently, at a combined IEA and European Commission event promoting actions to cut Europe's reliance on Russian fuel and also reduce GHG emissions, held on April 21st³, the Director-General of DG ENER Juul Jørgensen said: *"Energy efficiency has the potential to be the most important policy initiative for reducing our dependence on Russian imports and responding to the current energy market challenges, both through short term energy savings, and longer-term energy efficiency measures."*

Therefore, reasons are manifold to further intensify efforts to deliver energy savings in the short term and come up with actions, initiatives and strategies that scale up energy efficiency financing and make the best use of available EU funds and finance. The Commission's objective is to deploy the public funding available in the context of the MFF 2021-2027, such as InvestEU, Cohesion Policy Funds (ERDF, CF), Horizon Europe and LIFE, as well as instruments of the Recovery package, notably the Recovery and Resilience Facility, in the most efficient manner i.e. mobilising additional funding through the involvement of the private sector and through this maximising the overall impacts.

2.2 Background and objectives

The EU's 2030 and 2050 targets

In order to meet the European Green Deal climate and energy targets (55% GHG emissions reduction compared to 1990 by 2030), it is estimated that an additional EUR 260 billion per year will be necessary over the period 2021-2030.⁴ Up to 75 % of investment needs lie with the building sector. Much of that finance will need to come from the private sector, and the scope of this project is thus to investigate how public finance can best be used to facilitate the scale-up of energy efficiency investments. In the overall context of Europe seeking to achieve climate neutrality by 2050, and significantly reducing greenhouse gas

² The Fit for 55 package increased the EU's energy-efficiency target for 2030 from 32.5 per cent of final consumption to 36 per cent as a legally binding target.

³ [The European Commission and the IEA outline key energy saving actions | European Commission \(europa.eu\)](https://ec.europa.eu/energy/en/press-room/20220421_en)

⁴ European Green Deal Communication, Brussels, 11.12.2019, COM(2019) 640 final, https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF

emissions by 2030, Member States should thus consider reforms and investments to support the climate transition and scaling up of energy efficiency investments as a matter of priority. The Commission has put forward a number of initiatives to facilitate this. These include, *inter alia*, the Fit for 55 package with revision of the EU's energy efficiency related legislation and the operationalisation of the Energy Efficiency First (EE1st) Principle, further described in the following.

Energy Efficiency First (EEF) Principle

The Commission has stressed in the revised Energy Efficiency Directive (EU 2018/2002)⁵ and in its guidance to Member States on the country-specific recommendations to the NECPs⁶ not only the relevance of the EE1st principle to planning and policy making but also that energy efficiency needs to be taken into account in investments, e.g. whether investments are made considering the full energy efficiency potential; whether sufficient funds to this have been allocated; and whether EEF has been sufficiently taken into account when prioritizing investments and public spending.

Commission Recommendation and Guidelines on EE1st

In September 2021, the Commission launched its Recommendation⁷ on how to apply the EE1st with a set of Guidelines⁸ to ensure that the EE1st principle is applied in policy, planning and investment decisions at various decision-making levels, when energy demand or supply is affected. Also, application of the principle should support investments contributing to environmental objectives listed in the EU Taxonomy Regulation.⁹ In this way the energy-efficient solutions considered under the EE1st principle should meet environmentally sustainable investment criteria of the EU Taxonomy at all stages of the energy value chain. It is however noted that the EE1st principle is not well integrated in the EU Taxonomy Do No Significant Harm criteria for climate change mitigation in relation to renovation of existing buildings (please refer to Box 1 below).

The Guidelines provides suggestions *inter alia* for: (i) setting up dedicated Energy Efficiency Funds or schemes that provide strong incentives for EE investments; (ii) for applying the EE1st principle to all relevant areas of EU funding instruments; and (iii) for defining eligibility criteria for financial support by setting energy efficiency targets and benchmarks to prioritise energy efficient projects. The Guidelines also suggest assisting fund managers and project promoters who apply the EE1st principle and offering advisory services to managing authorities to help them operationalise the EE1st principle in their programmes, projects or products, notably through the Technical Support

⁵ Recital 2 of the EED Directive EU 2018/2002

⁶ Communication 'United in delivering the Energy Union and Climate Action - Setting the foundations for a successful clean energy transition', COM (2019)285 final

⁷ Commission Recommendation on Energy Efficiency First: from principles to practice – Guidelines and examples for its implementation in decision-making in the energy sector and beyond, C(2021)7074 final.

⁸ Annex to C(2021) 7014 final

⁹ Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment, OJ L 198, 22.6.2020, p. 13–43

Instrument.¹⁰ Thus, dedicated advisory services are foreseen not only for managing authorities but also to financial institutions benefitting from EU programmes to help them reflect the EE1st principle both during the assessment phase (due diligence) and the implementation phase (project development). It is also foreseen that the Commission may issue further guidelines in the coming years.

¹⁰ E.g. ad hoc technical assistance from the EU advisory hub, ELENA, cohesion policy programmes as relevant and other project development assistance under the LIFE Clean Energy Transition programme.

Text box 2-1 Incomplete integration of EE1st in relation to renovation of existing buildings in the context of the EU Taxonomy for sustainable activities

The first delegated act on sustainable activities for climate change adaptation and mitigation objectives was published in the Official Journal on 9 December 2021 and is applicable since January 2022.

The Taxonomy Regulation for climate change mitigation contains technical screening criteria (TSC) for substantial contribution (SC) to climate change mitigation including the following key provisions:

For construction of new buildings:

- > The Primary Energy Demand (PED), ..., is at least 10 % lower than the threshold set for the nearly zero-energy building (NZEB) requirements in national measures implementing Directive 2010/31/EU of the European Parliament and of the Council.
- > The energy performance is certified using an as built Energy Performance Certificate (EPC).

For renovation of existing buildings:

- > The building renovation complies with the applicable requirements for major renovations.
- > Alternatively, it leads to a reduction of primary energy demand (PED) of at least 30 %.

It is noted that EE requirements are embedded in the SC criteria for climate change mitigation for both construction of new buildings and renovation of existing buildings.

The Taxonomy Regulation for climate change adaptation contains TSC for SC to climate change adaptation in relation to construction of new buildings and renovation of existing buildings. The related Do No Significant Harm (DNSH) criteria for climate change mitigation are:

For construction of new buildings:

- > The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
- > The Primary Energy Demand (PED) setting out the energy performance of the building resulting from the construction does not exceed the threshold set for the nearly zero-energy building (NZEB) requirements in national regulation implementing Directive 2010/31/EU.
- > The energy performance is certified using an as built Energy Performance Certificate (EPC).
- > For renovation of existing buildings:
- > The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.

Hence, while EE requirements are embedded in the DNSH criteria for climate change mitigation for the construction of new buildings, there are no EE related requirements in the DNSH criteria for climate change mitigation for renovation of existing buildings.

This is mirrored in the draft TSC for the Taxonomy Regulation for the remaining four environmental objectives where TSC for SC in relation to construction of new buildings and renovation of existing buildings are included for transition to a circular economy and the related DNSH refer to the DNSH established in the Taxonomy Regulation for climate change adaptation.

Hence, renovation of existing buildings can claim substantial contribution to climate change adaptation or transition to a circular economy and simultaneous compliance with DNSH criteria for climate change mitigation irrespective of the energy performance of the assets.

Fit for 55 package	The implementation of the EE1st should be seen as an important element of the achievement of the EU Green Deal target and the 'Fit for 55 package', which consists of revisions to the EU's climate, energy and transport related legislation. ¹¹ Within the energy sector, the Commission proposed to revise the Renewable Energy Directive, the Energy Efficiency Directive, the Effort Sharing Regulation, as well as the EU Emission Trading System (ETS) with an introduction of a separate ETS for road transport and buildings.
Social Climate Fund	In addition to the revision of existing legislation, the European Commission proposed to establish the Social Climate Fund. ¹² The Fund will particularly target the social and distributional challenges arising from the price impact on vulnerable households, micro-enterprises and transport users, of the inclusion of buildings and road transport into the ETS. Within the building sector, the Fund will provide temporary income support and investments in energy efficiency of buildings and decarbonisation of heating and cooling of buildings. The Fund will be operational during the last two years of the RRF and last until 2032.
Renovation Wave	The Commission's 2020 Renovation Wave Communication, ¹³ the strategy to trigger a Renovation Wave for Europe, contained a series of lead actions covering information, concrete legislative and non-legislative measures and enabling tools, financing and non-financing aspects, and takes into account different levels of action at EU, national and local or regional level, to make faster and deeper renovation. The EU's recovery instrument NextGenerationEU, alongside the EU's Multiannual Financial Framework, has provided an unprecedented volume of resources to kick-start renovation for recovery, resilience and greater social inclusion. The objective of the Commission's strategy has been to at least double the annual energy renovation rate of residential and non-residential buildings by 2030 and to foster deep energy renovations, resulting in 35 million building units renovated by 2030. It is stressed in the strategy that the increased rate and depth of renovation will have to be maintained post-2030 in order to reach EU-wide climate neutrality by 2050. Thus, for reaching the objectives of the strategy, three areas need specific attention and should be considered as a priority for policy and financing: a) tackling energy poverty and worst-performing buildings; b) renovating public buildings, such as administrative, educational and healthcare facilities and c) decarbonising heating and cooling. The Communication was backed by key Commission actions and indicative timelines ¹⁴ , and by a Commission Staff

¹¹ Communication from the Commission on 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality, COM/2021/550 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0550>

¹² Regulation of the European Parliament and of the Council establishing a Social Climate Fund, https://ec.europa.eu/info/sites/default/files/social-climate-fund_with-annex_en.pdf

¹³ A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, COM(2020) 662 final

¹⁴ Annex to the Communication

Working Document on support from the EU budget to unlock investment into building renovation under the Renovation Wave¹⁵.

EED

In parallel, the recast Directive on Energy Efficiency aims to further stimulate efforts to promote energy efficiency and achieve energy savings. The EED seeks to introduce a higher target for reducing primary (39%) and final (36%) energy consumption by 2030 now binding at EU level, in line with the Climate Target Plan, up from the current target of 32.5% (for both primary and final consumption). The Directive also introduces a benchmarking system for Member States to set their national indicative contributions to the binding EU target and proposes to nearly double Member State annual energy savings obligations in end use. The proposal focuses on sectors with high energy-savings potential – notably heating and cooling, industry and energy services – and puts additional emphasis on the public sector for the example that it can serve in leading the transition. Building on the Renovation Wave strategy, the proposal includes measures to boost renovation in a way that also benefits society in terms of addressing energy poverty and strengthening consumer empowerment. The proposal also outlines a range of changes that should increase the uptake of energy efficiency investments and points to one-stop shops or similar TA structures that can enable multiple target groups to design and implement projects and measures and provide technical, administrative and financial advice and assistance, facilitate administrative procedures and ensure access to financial markets.¹⁶ With the ITRE report endorsed in September 2022 by the Parliament together with the mandate to enter into interinstitutional negotiations, the Parliament has suggested more ambitious targets for the public sector than the revised targets proposed by the Commission in its REPowerEU plan from May 2022, including more detail on implementing the Energy Efficiency First principle.¹⁷

EPBD

To set a long-term vision for buildings towards EU-wide climate neutrality and supporting the Renovation Wave Strategy, the revision of the Energy Performance Building Directive (EPBD) was proposed¹⁸. The recast Directive focuses on ensuring a higher level of ambition for reducing GHG emissions from the buildings sector with the flexibility to account for differences in buildings stocks across EU Member States. The EPBD focuses on increasing the rate and depth of building renovations, improving information on energy performance and sustainability of buildings, and ensuring that all buildings will be in line with the EU's 2050 climate neutrality objective, while facilitating more targeted financing for investments in the sector. More specifically, the current provisions on major renovation are complemented with new EU-level minimum energy performance

¹⁵ SWD (2020) 550 final

¹⁶ Proposal for a Directive of the European Parliament and of the Council on Energy Efficiency recast, COM 2021 (558) final

¹⁷ European Parliament, Amendments adopted by the European Parliament on 14 September 2022 on the proposal for the Energy Efficiency Directive, 2021/0203/COD.

¹⁸ Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the energy performance of buildings (recast), Brussels, 15.12.2021 COM(2021) 802 final, <https://ec.europa.eu/energy/sites/default/files/proposal-recast-energy-performance-buildings-directive.pdf>

standards (triggering an increase in renovation rates) for the worst-performing buildings: for public (i.e. buildings and building units owned by public bodies) and non-residential buildings: they require EPC class G buildings to be renovated and improved to at least energy performance class F at the latest by 2027 and to at least energy performance class E at the latest by 2030. And for the worst-performing residential buildings to at least class F by 2030 and to at least class E by 2033. The focus on the very lowest performing classes of the building stock ensures that efforts focus on buildings with the highest potential for decarbonisation, energy poverty alleviation and extended social and economic benefits. Also, as part of the national building renovation plans, Member States shall establish specific timelines for achieving the higher energy performance classes. By increasing actions to reduce energy consumption in the building sector, the EPBD will also contribute to the delivery of the overall energy efficiency targets set in the Energy Efficiency Directive (EED).

Recovery and Resilience Facility (RRF)

In addition to the already established key sources of EU funding, major sources following the Covid-19 crisis, provide a strong incentives for Member States to plan for very large investments. The Recovery and Resilience Facility (RRF) has offered considerable support to Member States thereby triggering private finance from FIs and investors making EUR 723.8 billion available (in current prices) in loans (EUR 385.8 billion) and grants (EUR 338 billion) available. With a mandatory climate target of 37%, the RRF has been highly relevant to finance improvement of energy efficiency of public and private buildings through the national Recovery and Resilience Plans (RRPs)¹⁹, for more details see section 3.3.

According to the recent 2022 report from the Commission on the implementation of the Recovery and Resilience Facility²⁰, energy efficiency accounts for 29% of the total expenditures under the green transition pillar (total cost of EUR 64.4 billion). The majority of investments concern energy efficiency of residential buildings (total cost of EUR 28.4 billion), often targeting a reduction in primary energy demand of 30% or more. Some also include measures aimed at addressing energy poverty. Renovations of public buildings (e.g. schools, sport halls and historical buildings) are well represented across most plans (total cost of EUR 20.2 billion). The plans also reveal investments for construction of new highly energy efficient public and private buildings. Also, EE investments are foreseen in other sectors to help decarbonisation of production processes in SMEs, larger enterprises and district heating systems, e.g., by promoting integration of cleaner and more energy efficient technologies for manufacturing processes and centralised heat production with a total cost of EUR 6.5 billion. RRFs encourage building renovation in all sectors: private and public buildings, residential and companies (e.g., one-stop shop) and more environmentally friendly renovations with conditions for replacing outdated heating systems and encourage their replacement by renewable energy or

¹⁹ The RRFs, the Council Implementing Decisions and the Commission Staff Working Documents are accessible at Recovery and Resilience Facility | European Commission (europa.eu).

²⁰ Report from the Commission to the European Parliament and the Council on the implementation of the Recovery and Resilience Facility, COM(2022) 75 final.

district heating. Going ahead, Member States will report on implementation via the Recovery and Resilience Scoreboard on a set of common indicators (e.g. savings in annual primary energy consumption) related to the objectives of the RRF.²¹ An initial analysis of the RRFs were made as part of the Interim Report and is enclosed to this report as Appendix C.

REPowerEU

With the situation in Ukraine, as stated in the Communication REPowerEU²², the need for reinforced incentives to improve energy efficiency is even more pertinent to reduce dependence on fossil fuels in homes, buildings and industry and at the level of power systems. The energy efficiency first principle is more relevant than ever and should be applied across all sectors and policies. REPowerEU also points to that co-legislators might consider boosting the Fit for 55 proposals with higher or earlier targets for renewable energy and energy efficiency.

Prior and ongoing work to facilitate upscale

Energy efficiency investments often come with high transaction costs and/or perceived uncertainty (e.g. projects are small and not sufficiently aggregated to attract interest from investors; energy efficiency investments in buildings tend to have relatively long and less attractive paybacks; investors have been more reticent to provide funding for EE investments compared to other similar investments in renewable energy questioning the soundness of the business case). Growing evidence that the risks associated with energy efficiency investments are lower than the level perceived by markets is however emerging. A number of platforms, tools and mechanism to provide overview of energy efficiency investments (pipeline projects as well as actual EE investments); to assess risks and opportunities associated with a particular project and for actual de-risking Energy Efficiency Investments are now appearing in the market.

EEFIG3 has to date addressed this through a number of projects, *inter alia*: The De-risking Energy Efficiency Projects, DEEP (SR-6, SR-13), the Monitoring and communication of financing practices (SR-7), the Quantitative relationship between EE improvements and lower probability of default of associated loans (SR-8), the Improving EE investment in Industry (SR-10) and the Energy Efficiency First principle (SR-14), to mention but a few.

Objectives

The **Energy Efficiency Financial Institutions Group (EEFIG)** has the essential task of helping to leverage the energy efficiency investment in the context of the upcoming MFF. It can mobilise expertise in the area of energy efficiency from both, public/EU funds and private sector to advise on the actions, initiatives and strategies and their implementation.

In the context of the Fit for 55 package and the proposed EPBD and EED, the outcome of the Working Group on Energy Efficiency financing post 2020, will focus on:

²¹ Commission Delegated Regulation (EU) 2021/2106.

²² REPowerEU: Joint European Action for more affordable, secure and sustainable energy, COM (2022) 108 final.

- > Providing recommendations for possible actions, initiatives and strategies that could be considered by the Commission for implementation in the framework of MFF 21-27 and beyond, and that could contribute, in the most efficient way to leverage and trigger private financing from financial institutions and investments from investors and final beneficiaries;
- > Develop EEFIG guidance for financial institutions, EU budget implementing bodies, project promoters and other beneficiaries with the objective to contribute in the most efficient way to the achievement of the energy efficiency target for 2030 by using the EU budget as a catalyst to leverage and trigger private financing from financial institutions and investments from investors and final beneficiaries.
- > Learning from the assessment of architecture and implementation of different financing instruments under previous and current MFF 2021-2027 (Cohesion Policy Funds, RRP) and bringing the lessons learned to next MFF.

Role of the Working Group

As per the ToR, the Working Group will consider **energy efficiency in buildings** and **industry** and based on discussion with Commission potentially also specific sub-sectors such as SMEs, commercial/residential real estate, where particular funding aspects are relevant.

This assignment will identify, assess and describe **best practices** for scaling up energy efficiency investment with particular focus on their ability to mobilise private capital to leverage public funds and their appropriateness and potential for tailoring to the main EU funding vehicles, the modalities of programming and deployment. Conclusions will be based on up-to-date literature, Working Group meetings, and in-depth knowledge by our experts on the specific aspects and challenged related to energy efficiency financing.

In addition to specific case practices, actions and initiatives on scaling up energy efficiency investment, the WG will also elaborate on finance-related barriers and constraints. For example, a common barrier across many countries is the creditworthiness of large parts of the populations or companies. While there is finance available, and EE technologies are mature, most EE loans may not be applicable due to the client's risk perception by the bank. We will coordinate with other EEFIG Working Groups, e.g. on risk perception and the Working Group on monitoring of financing practices, while our study will focus more on finance practices and business models that are overcoming this barrier. Other factors that may be analysed are the transaction costs that individual (or small) EE loans represent for commercial banks, or the drivers (or lack thereof) of certain financing practices, and other factors such as lack of capacity within financial institutions to develop EE product lines.

Non-finance-related issues, such as the lack of harmonised EE taxonomies and EE performance criteria, will be considered to a limited degree and only to the extent necessary. This is mainly because they are already being analysed in other EEFIG Working Groups and the intent is to reduce duplication; rather, this study can coordinate with other Working Groups while focusing more on financial

issues. The scope of this project in terms of the Renewed Sustainable Financing Strategy is thus primarily to ensure adherence to the EU's taxonomy framework and the Do No Significant Harm (DNSH) principle.

Lastly, and as highlighted by DG ENER during the Kick-off Meeting, the Recovery and Resilience Facility is at the centre of the work of the WG due to its potential for Member States to scale up and prioritise large investments in energy efficiency. Also, the Cohesion Funds (ERDF and CF) and InvestEU (both financial instruments and the Advisory Hub) will be covered by the WG as well as the Innovation Fund and Modernisation Fund. The EU's Innovation Fund provides funding for large-scale innovative technologies to all 27 Member States, whereas the Modernisation Fund support investments targeted 10 lower income EU Member States in their transition to climate neutrality, also covering energy efficiency investments. The scope of this assignment has thus been considerably widened.

A cross-cutting strategic approach (going beyond buildings) by the WG will – where feasible – be further looked into with the WG as well as blending as a strategy for leverage of public funds by private financing should be considered (e.g. in the context of InvestEU, Cohesion Policy Funds, Recovery and Resilience Facility).

Scope

The work carried out in this assignment will comprise of three major steps which are outlined below and are further detailed in Figure 2-1 below:

- The preparation of an inception report by the project team, which will serve as the basis for the work of the Working Group (Task 1)
- The support to the set-up and initial work of the Working Group (Task 2)
- The support of the ongoing work of the Working Group and the final report (Task 3).

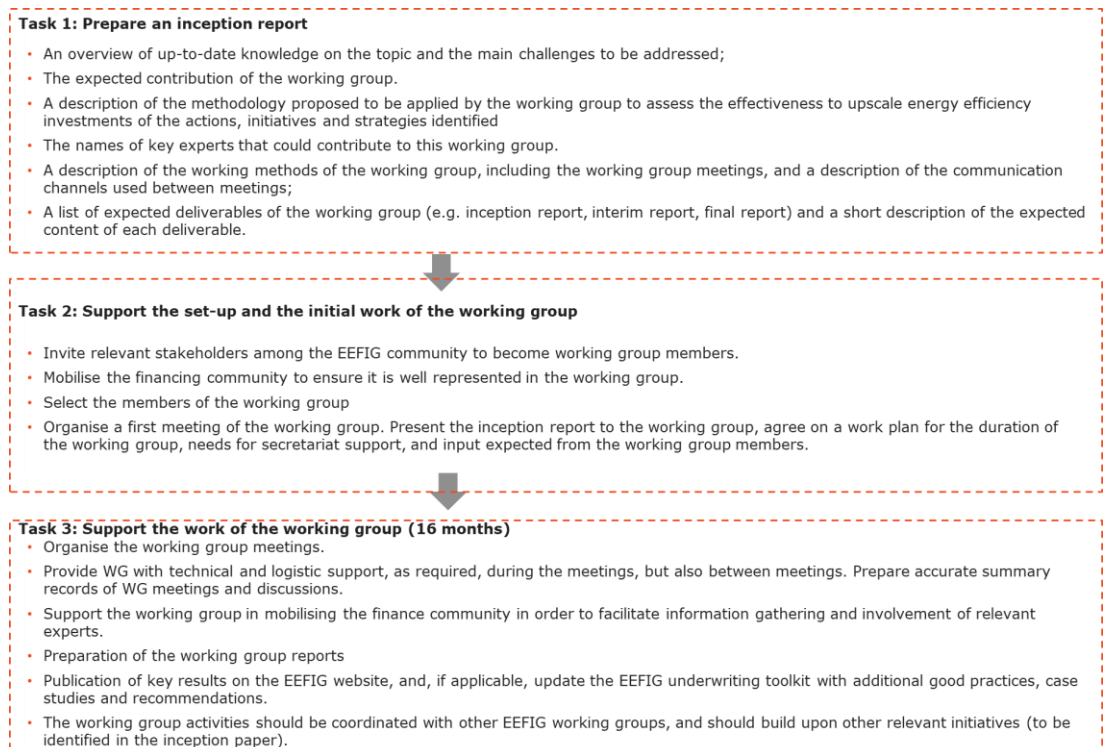
2.3 Method

To prepare this final report, the team has pursued the following steps to prepare an initial overview of the potential energy efficiency relevant funds (focusing on Recovery and Resilience Facility and the ERDF/CF), current barriers and opportunities and possible actions for upscaling EE investments. Before presenting the method, the section visualises the scope of work under the assignment.

2.3.1 Overview of tasks and activities

The present section outlines the overview of tasks and activities in scope of work under the assignment, as presented in the below chart.

Figure 2-1 Work flow



2.3.2 Desk research

This final report builds on the inception report, the interim report, the desktop review of the relevant EU funds carried out by the core team, the four working group meetings and presentations held with the EEFIG members and the Commission.

A knowledge base was compiled with mapping and overview of the relevant EU legislation on EU funds, reports and examples that were identified:

- > Materials including overview of relevant EU funds, studies, reports, academic papers etc., were identified and placed into a shared drive with detail descriptions and/or updates on energy efficiency financing.
- > All desk-based research work is hosted on an online knowledge library. This will enable WG members and DG ENER full access to any studies noted in the desktop study.

2.3.3 Building on previous EEFIG work and SFSB initiative

This study has built on previous work and barrier studies regarding scaling of energy efficiency investments made in the context of EEFIG2 and EEFIG3. The

Previous EEFIG
work

EEFIG 2015 report²³ identified seven cross-cutting themes with challenges which require action:

- > **Driving demand** via e.g. project development and technical assistance, raising awareness of the benefits of energy efficiency (as addressed in the EEFIG Underwriting Toolkit);
- > **Managing uncertainty** via e.g. via gathering/sharing investment performance data (as collected in the EEFIG DEEP Database), and making data sharing a requirement for energy efficiency investments which benefit from public finance;
- > **Distribution and aggregation** reducing transaction costs via e.g. the support of local and regional authorities, and other intermediaries (such as trade federations or chambers of commerce, banks, post offices, utilities and other businesses with retail customers) and using new technologies, tools and pooling approaches;
- > **Blending grants with loans** e.g. in particular for the more disaggregated sectors of residential buildings and SMEs;
- > **Accounting treatment** e.g. in relation to companies with limited ability to raise debt via their own balance sheets;
- > **Investment horizon period and optimal scope** e.g. favouring the incremental provision of direct and indirect public financial support mechanisms for long-term and additional energy efficiency investments; and
- > **Financial institutions "regulatory issues"** such as capital requirements and the availability of risk capital.

Smart
Finance for
Smart
Buildings
Initiative

Drawing on the EEFIG findings, the **Smart Finance for Smart Buildings Initiative** (SFSB) has concentrated on addressing some of these challenges through a three-pillar approach, namely:

- (i.) More effective use of public funding,
- (ii.) Aggregation and assistance for project development, and
- (iii.) De-risking.

The framework, conclusions and lessons learnt from the SFSB initiative and the EEFIG work has served as a baseline for the Working Group, before expanding on challenges focusing on the MFF 2021-2027.

The Member States programming of the EU Multiannual Financial Framework 2021-2027 were generally delayed due to the impacts of the Covid-19 including the delayed adoption of the final texts of the MFF, and Member States became delayed in the programming of ERDF/CF funds due to the planning and

²³ <https://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report%20EEFIG%20v%209.1%2024022015%20clean%20FINAL%20sent.pdf>

submission horizon for the more urgent Recovery and Resilience Plans. Whereas there is a good overview of planned allocations for energy efficiency under the RRP, there is not yet a fully comprehensive overview of the planned actions for energy efficiency under the ERDF/CF, as not all programmes have been submitted to the Commission yet.

Insight acquired in the context of the Working Group on the programming of the EU Multiannual Financial Framework 2021–2027 will be very relevant to develop a future EEFIG guidance on how to access and make the best use of EU budget support for energy efficiency financing. Also, recommendations will be very needed for the framing of the next MFF 2028-onwards.

The Working Group has – by design – comprised a diverse group of experts, with different interests, views, and backgrounds aiming to reach key, critical recommendations for the future MFF. The final conclusions of the Working Group are tailored to the EU-specific MFF 2021-2027 context. The Working Group has been critical in obtaining some of the more difficult lessons learnt regarding barriers, financial practices, initiatives and strategies.

3 Funding sources for EE

This chapter presents a mapping on energy efficiency funding in the context of the MFF 2021-2027 based on desk research and outcomes from the working group meetings. The chapter also discusses combination and blending of funds across the funding instruments.

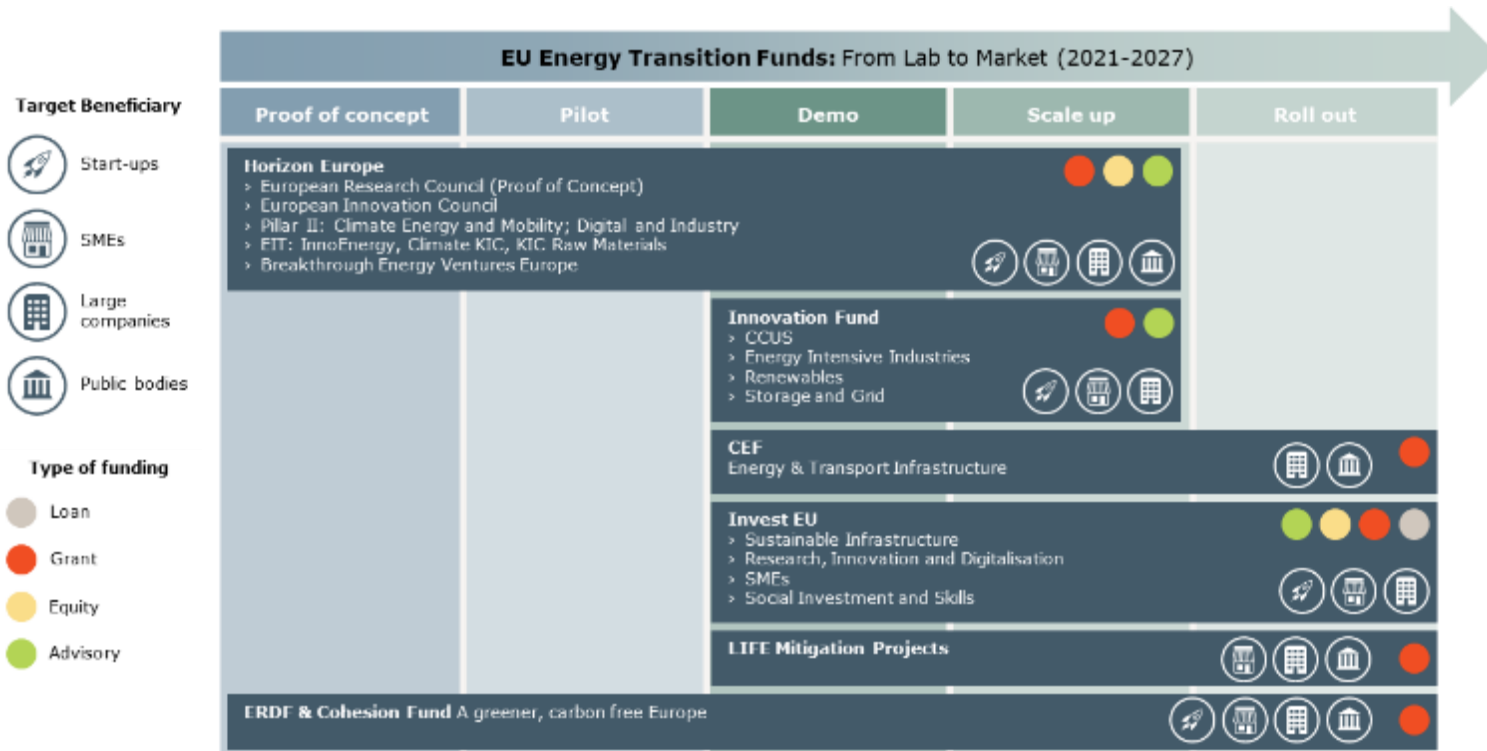
3.1 Overview of funding

The focus is on the key funding instruments Cohesion Policy Funds (ERDF/CF) and the Recovery and Resilience Facility as those most targeted for supporting implementation of the renovation wave and to cover the immediate funding gap on energy efficiency investments. Horizon Europe, LIFE and Innovation Fund are longer term opportunities for maturing and scaling new technologies and will not have substantial effects before 2030.

Table 3-1 Overview of funding sources and their budgets

Funding source	Budget 2021-27
Horizon Europe	15 bn EUR (climate energy and mobility)
Innovation Fund	10 bn EUR (overall budget)
Modernisation Fund	14 bn EUR from EU ETS auctioning (2021-2030)
CEF	5 bn EUR (energy infrastructure)
Invest EU	9 bn EUR (sustainable infrastructure)
LIFE	1 bn EUR (clean energy transition)
ERDF & CF	25 bn (share targeting climate objective)
Recovery and Resilience Facility	249 bn EUR (share targeting climate action), subject to national recovery plans

Figure 3-1 Overview of EU energy transition funds



Source: European Commission

3.2 ESI Funds 2014-2020

The European Structural and Investment Funds (ESIF) - representing to date the largest amount of potential EE-related investment of the EU budget - has so far played a crucial role in energy efficiency investments - although their deployment is subject to Member States' Programme priorities.

Under the previous ESI Fund programming period (2014 – 2020), support was provided both via EC centrally managed programmes (e.g. the Private Finance for Energy Efficiency instrument, funded under the LIFE programme) and via Cohesion Policy funds. The ESI Funds played a crucial role and it is estimated that over the 2014 – 2020 period, around EUR 17.6bn was allocated to support EE investments. Although there is high potential for financial instruments in the EE sector, only a fraction (around 14%) of EE ESIF was used via financial instruments, while the significant majority of EE ESIF was used as grants.²⁴ Also, the percentage of EE ESI Funds used varied a lot across Member States and a large number of Member States did not implement any EE related financial instruments during the previous programming period.²⁵

Due to the impacts of Covid-19, the late adoption of the MFF 2021-2027, and the need for Member States to submit their Recovery and Resilience Plans early

²⁴ The potential for investment in Energy Efficiency through financial instruments in the European Union, fi compass/ERDF (European Commission, EIB) Final Report 2020.

²⁵ Ibid.

2021, the Member States programming activities were delayed in most Member States. Based on Partnership Agreements and ERDF programmes publicly accessible at the time of writing this report, Member States are expected to use Cohesion Policy Funds (ERDF and CF) for energy renovation of buildings in line with NECP orientations and investment priorities set out in Long Term Strategies for energy renovations of buildings both for residential and business use, and for both public and private buildings, along with energy efficiency investments in industry.

3.3 Recovery and Resilience Facility

In addition to the key funding instruments available to date, and following the Covid-19 pandemic, the EU launched the RRF as the central pillar of the recovery plan for Europe, the NextGenerationEU instrument. The RRF offers financial support to Member States to mitigate the social and economic impact of the pandemic crisis. Funds to be disbursed to Member States are to be based on the national Recovery and Resilience Plans targeting reforms and public investment projects up to 2026 and should align with EU priorities, reflect the country-specific challenges, support the green transition, and foster digital transformation. The recovery plans build, amongst others, on the National Energy and Climate Plans (NECPs). The RRF has thus become a highly relevant EU fund for energy efficiency investments with 'Renovate' as an important flagship area for improvement of EE in public and private buildings contributing to the doubling of the renovation rate and the fostering of deep renovation by 2025. Besides building on the national priorities in the NECPs, all investments included in the plans will need to respect the 'do no significant harm' (DNSH) principle, meaning that actions should not be to the detriment of climate and environmental objectives as laid down in the EU's taxonomy on sustainable finance. An overview of how RRF can be combined with other EU Funds and mechanisms was provided to DG ENER under the SR-3 Admin project in December 2020 (see abstract from this attached as Appendix B).

The RRF Regulation makes investment in boosting energy efficiency, in housing and other key sectors of the economy, amongst others in the following areas: Energy efficiency and demonstration projects in small and medium-sized enterprises or large enterprises; energy efficiency renovation of existing housing stock and demonstration projects; construction of new energy-efficient buildings; energy efficiency renovation or energy efficiency measures for public infrastructure, and demonstration projects.

To benefit from the RRF, the Member States prepared national Recovery and Resilience Plans (RRP).²⁶ The RRs build in parts on the National Energy and Climate Plans (NECP). Early studies of the NECPs pointed to annual EE investment needs reported by the MS in the range of EUR 62.6 per annum or EUR 626 bn over 2021-2030 period, whereas the European Commission

²⁶ National Recovery and Resilience Plans are available here: https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en

estimates EUR 185 bn per annum (EUR 115 bn in the residential sector and EUR 70 bn in the business sector)²⁷. As to the MFF period 2021-2027, studies are assuming that Cohesion Policy Fund EE resources would only cover about 4% of the EE investment needs (calculated based on the NECPs) or only 1-3 % of the investment gaps.²⁸ The fi compass June 2020 study concluded that, given this context, the use of financial instruments which are able to generate high leverage effects are needed, the use of financial instruments in the EE sector should be prioritised, and a combination of financial instruments and grants is advisable. Also, as an indicative benchmark it is proposed that in general the grant component of a number of financial instruments/grant programmes across MS should not exceed 40% of the overall investments, leaving the remaining part to be covered by financial instruments, exploiting the flexibility under the Common Provisions Regulation for 2021-2027.

The Recovery and Resilience Plans have been assessed by the Commission and approved by the Council, and prefinancing has been disbursed. The Plans support short and medium-term investments in energy efficiency of buildings and should be implemented by the end of 2026. The type of reforms and investments supported under the component '*Renovation wave aimed at enhancing energy and resource efficiency*'²⁹ are presented in Text box 3-1.

Text box 3-1 Examples of types of reforms and investments supported within energy efficiency of buildings in RRP

<p>Reforms:</p> <ul style="list-style-type: none"> > One-stop shops at NUTS-3 level (or relevant functional area) facilitating energy renovation projects across their lifetime. > National plan for energy and resource efficiency skills development, and a certification scheme for professionals. > Transferrable on-bill recovery scheme, linking the loan for renovation to the property meter (not the owner or occupant) and allowing repayment via electricity or heating bills. > Supportive legislative package for energy and resource efficiency in buildings. <p>Investments:</p> <ul style="list-style-type: none"> > Energy and resource efficiency scheme for public buildings, health and social infrastructures based on comprehensive energy performance contracts. > Home renovation support scheme to increase the energy and resource efficiency of residential buildings and social housing. > Reuse and recycling infrastructure investments.
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²⁷ Commission Staff Working Document SWD (2020) 98 final: Identifying Europe's recovery needs. Brussels, 27.5. 2020.

²⁸ The potential for investment in Energy Efficiency through financial instruments in the European Union, fi compass/ERDF (European Commission, EIB) Final Report 2020.

²⁹ Recovery and Resilience Plans, Example of component of reforms and investments – Renovation wave aimed at enhancing energy and resource efficiency, https://ec.europa.eu/info/sites/default/files/component_renovation.pdf

The preliminary analysis of the factsheets available early 2022 on RRP for Member States indicated that around EUR 40 billion³⁰ will be allocated to support energy efficiency in buildings. Later information as part of the REPowerEU and the EU 'Save Energy' Communication³¹ points to around 67 billion across the different sectors, focusing on financing to increase the energy efficiency of public and residential buildings, followed by the construction of energy efficient buildings, with energy efficiency in SMEs, industry and tertiary buildings being less frequent. Appendix C provides an overview of RRP allocation of funding on energy efficiency per Member State by early 2022.

The Commission has performed assessments of the final RRP from Member States. The assessments are based on the RRP and as such, the level of details on individual elements differ. In some Member States, albeit not consistently, the Plans also elaborate on the investment gap compared to the NECs.

Table 3-2 presents an extract from the assessments of the selected Member States with most details. The remaining Member States are presented in Appendix C.

³⁰ As not all RRP have been finalised and endorsed by the European Commission, the estimation is preliminary based on publicly available figures early 2022.

³¹ EU 'Save Energy', COM(2022)240 final.

Table 3-2 The assessment of selected Member States RRs on energy efficiency

	Energy renovation of buildings	Investment gap
Spain	<p>Support to more than half a million energy efficiency renovations in residential buildings to achieve, on average a primary energy demand reduction of at least 30%.</p> <p>In the plan, EUR 7.8 billion will be devoted to the renovation of residential dwellings, public buildings and urban rehabilitation in Component 2 (Renovation), for public buildings in Component 11 (Public Administration), and for sports facilities in Component 26 (Sports). These measures are in line and support the ambitions of the Spanish Long Term Building Renovation Strategy.</p>	<p>Additional funding will be needed to deliver on the energy savings objectives of the NECP, in particular by ensuring a relatively higher leverage factor for private investments.</p> <p>The NECP plans to leverage private funds equivalent to three times the volume of public funds, which is higher than what the component is likely to achieve. In this context, a regulatory reform is foreseen in the component to foster private investments, notably by facilitating communities of owners to borrow and by providing Instituto de Crédito Oficial (ICO) guarantees to banks for lending for this purpose.</p>
Croatia	<p>EUR 625 million for energy efficiency renovation of buildings. In addition, important investments contributing to the climate target include the construction of energy-efficient buildings in various sectors</p> <p>The investments will achieve on average at least an increase of 30% primary energy savings compared to the pre-renovation state. The building renovation initiative will directly contribute to the Renovation Wave. In terms of enabling reforms supporting the reduction of energy consumptions and greenhouse gas emissions in buildings, the plan includes a pilot project for the establishment of an energy management system that should contribute to the development of a new financing model for the renovation of the public building stock.</p>	<p>The energy efficiency measures in building renovation and industrial processes will support this contribution, although the total expected energy savings from these measures are not quantified at this point. However, further investments in building renovations and energy efficiency would be needed in the next years to deliver on the objectives set out in the 2030 National Energy and Climate Plan and the Long-Term Renovation Strategy.</p> <p>In particular, additional efforts will be needed in order to leverage additional private capital for building renovations and energy efficiency measures in industrial processes, and to uphold the Energy Efficiency First principle.</p>
Greece	<p>Estimated value: EUR 2.7 billion - covers significant investments in enhancing energy efficiency in Greece's building stock, including a flagship investment in "Energy renovation of residential buildings" that is estimated at EUR 1.25 billion. The measures related to renovation and enhancing energy efficiency will result in average primary energy savings or greenhouse gas reduction of 30%.</p>	<p>The plan proposes significant support and additional funding for buildings renovation. At the same time, substantial amounts of additional public funding will still be needed to mobilise the total volume of investments necessary to deliver on the remaining of the energy savings required to achieve the objective set in the NECP and the long-term renovation strategy for 2030.</p>

Source: Extracts from the Commission's Assessments of Recovery and Resilience Plans for Spain, Croatia and Greece: https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en

Given that the InvestEU, the RRF and Cohesion Policy Funds (ERDF/CF) are those that most likely can mobilise investments to help close the funding gap during the short to medium time horizon, the SR-11 Working Group has focused on these instruments, whereas Horizon Europe and LIFE tend to target 2030 and beyond.

3.4 REPowerEU

The REPowerEU adopted on 18 May 2022³² with its requirements of new national REPowerEU Plans under the modified RRF and increased EU ambitions on energy savings has reinforcing further the need for swift implementation and further increase of the EU Energy Efficiency targets and mobilisation of private sector finance in the short to medium term. The RepowerEU has been complemented by the Commission's 'Save Energy' Communication³³ introducing a two-fold approach through achieving immediate energy savings through voluntary choices; and accelerating and strengthening structural, mid-to long term energy efficiency measures. Member States are encouraged to consider fast-tracking existing, and implementing additional, energy efficiency measures. In the ongoing co-decision processes on different legislative elements of the 'Fit for 55' package, the co-legislators are foreseen to strengthen the regulatory framework for energy efficiency in the short term and to deliver more energy savings in the mid- to long-term in the context of REPowerEU, e.g through increasing the ambition of national energy savings obligation and introducing additional Minimum Energy Performance Standards for buildings to boost renovations.

As to investment needs, additional investments of EUR 210 bln are foreseen before 2027 to phase out the Russian fossil fuel imports, meaning that all energy users need to implement the best energy savings measures and the most effective actions they can do, aligning with the EU's Energy Efficiency First Principle. Member States are asked in that respect to update their Recovery and Resilience Plans with a REPowerEU chapter to channel investment to REPowerEU priorities and make the necessary reforms, and Member States can use the remaining RRF loans (EUR 225 bln) and new RRF grants funded by the auctioning of EU ETS allowances (EUR 20 bln) for these priorities.

³² [REPowerEU: affordable, secure and sustainable energy for Europe | European Commission \(europa.eu\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0240&from=EN)

³³ COM 2022/240/final <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0240&from=EN>

Table 3-3 Overview of key funding sources for EE investment in MFF 2021 – 2027, their volume and status³⁴

	InvestEU	RRF	Cohesion Policy Funds (ERDF, CF)	Horizon Europe	LIFE
Description	Mobilising private investments through de-risking	Mitigating social and economic impact of Covid-19 crisis	Direct support towards clean energy investments	R&I and technology development framework	Capacity building and policy support
EE-related investment volume	EUR 9 bln (overall guarantee)	EUR 672.5 billion in total (Grants €312.5 billion; €360 billion in loans) of which 37% should be targeted climate action. Flagship on 'Renovate'	EUR ~75.5 bln ³⁵ (30% ERDF, 37% CF for climate objective)	EUR 15 bln (climate, energy and mobility)	EUR 1 bln (Clean Energy Transition subprogram)
Deployment	Individual applications	Subject to MS national recovery plans by 30 April 2021 at the latest	Applications subject to MS' Programming	Individual applications	Individual applications
Launch	2021	2021	2021	2021	2021

³⁴ Based mainly on the conclusions adopted at the Special meeting of the European Council 17-21 July 2020 (EUCO 10/20)
 COM (2018) 372 – 375

Following the EU funds mentioned in the table, additional EU funds that do not count as MFF funds should also be mentioned:

- > EUs Modernisation Fund (MF)³⁶: The MF was established in the context of the (EU) 2018/410 Emission Trading System (ETS) Directive and receives its revenues from carbon allowances. The MF provides support to 10 lower-income EU Member States (EE, LV, LT, PL, CZ, SK, HU, HR, RO, BG) in transition to climate neutrality by helping to modernise their energy systems and improve energy efficiency. Investments will have to fall into a priority area as defined by the ETS Directive. A number of Member States (CZ, HR, LT, RO, SK) have voluntarily topped up the amount with national allowances. The total revenues of the Modernisation Fund is expected to amount to some EUR 14 billion in 2021-30, depending on the carbon price. As resources from the Modernisation Fund do not count as EU budget resources and thus can be used as co-financing for EU level programmes or Cohesion Policy funding, MF funds have wider eligibility criteria than EU funds. Member States may draw on existing national funds and/or European instruments such as InvestEU or Cohesion Policy Funds for these projects.
- > EU's Innovation Fund³⁷ focus on highly innovative technologies (large-scale flagship projects as well as small-scale projects) with European value added that can bring on significant emission reductions and help promoters with demonstration of first-of-a-kind highly innovative projects. It aims to support a varied project pipeline with a wide range of innovative technologies in energy intensive industries, renewable energy, energy storage, CCS and CCU, and in all Member States. Applicants may draw on existing national funds and/or European instruments such as InvestEU, Horizon Europe, or the Modernisation Fund for these projects.

3.5 Combination/blending of funds

Combination of funds/blending in MFF 2014-2020 and MFF 2021-2027, respectively

The need for effective combination mechanisms between grants and financial instruments was repeatedly identified as a major implementation barrier for the MFF 2014-2020.³⁸ The 2014-2020 programming period of the ESI Funds allowed in the Common Provisions Regulation (CPR) for combinations of financial instruments and grants in single operations, provided that grants were used for technical assistance or to subsidise interest rates and guarantee fees. The current 2021-2027 programming has further simplified and extended these possible options to combine financial instruments and grants in both one and two operations and now also allows the disbursement of the combined support directly to final recipients:

³⁶ https://ec.europa.eu/clima/policies/budget/modernisation-fund_en

³⁷ https://ec.europa.eu/clima/policies/innovation-fund_en

³⁸ Successful examples were seen combining grant (capital rebate) with non-ESIF resources, e.g. the Lithuanian multi-apartment buildings modernisation programme, managed by the EIB.

'Financial instruments may be combined with programme support in the form of grants in a single financial instrument operation, within a single funding agreement, where both distinct forms of support shall be provided by the body implementing the financial instrument. In such a case, the rules applicable to financial instruments shall apply to that single financial instrument operation. The programme support in the form of grants shall be directly linked and necessary for the financial instrument and shall not exceed the value of the investments supported by the financial product'.³⁹ This is however based on a number of conditions⁴⁰ listed here in brief:

- > The programme support in the form of grants shall be directly linked and necessary for the financial instrument operation, which is the obligation of the managing authority to demonstrate that the grant is necessary for the financial instrument.
- > The programme support in the form of grants shall not exceed the value of the investments supported by the financial product, verified at financial instrument level (not systematically at project level).
- > In limited cases the CPR allows that final recipients get a higher support from grants than from the financial product provided the programme support does not exceed the value of the investment supported by the financial product at financial instrument level, providing for higher flexibility to design combined financial instruments to reach ambitious policy objectives.
- > Financial instruments and grants shall be covered by a single funding agreement. The need for grants should be identified and justified as part of the ex-ante assessment at programme level⁴¹ and be analysed in the investment strategy of the combined financial instrument. The Managing Authority or the Holding Fund will then sign one funding agreement with financial intermediaries. Both forms of support shall be provided by the body implementing the financial instrument who will thus also award the grant component and make the combined funding available. The body implementing the financial instrument combined with the grant component shall ensure a distinct accounting and reporting of the two elements of support.

Examples of
 combinations of
 financial
 instruments and
 grant

³⁹ Cf. Article 58(5) of the CPR

⁴⁰ Combinations of financial instruments and grants under shared management funds in the 2021-2027 programming period, fi compass, European Commission and EIB, May 2021

⁴¹ Cf. Article 22(3) of the CPR

Examples of the use of the grant component in such a combination may include⁴², but are not necessarily limited to:

Examples of the use of the grant component in such a combination include, but are not necessarily limited to:

- > Interest rate subsidy (to improve the conditions of access to private capital, ensuring that the cost of borrowing does not exceed a specific ceiling)
- > Technical support grant - either directly to, or for the benefit of the final recipient (for example via a "one stop shop"/"integrated energy services" setup)
- > Capital grant for households with low income
- > Capital rebate or capital grant linked to performance (incentivising project promoters to submit projects with higher policy impacts)

The recently published fi-compass *Model for a financial instrument with a grant component to support energy efficiency (EEFI)*⁴³ provides in depth explanation of the various possibilities listed above⁴⁴. The EEFI takes the form of a combined loan and grant financial instrument to be managed by a financial intermediary on behalf of a managing authority acting directly or through a holding fund.

The EEFI is made available for programmes co-financed by the ERDF or the Cohesion Fund, as part of Policy Objective 2 (PO2: a greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe)⁴⁵. The model financial instrument has been designed to channel the shared management and other public funds alongside financing from EIB, other IFIs, national promotional banks and financial intermediaries. Co-financing may thus be provided through national financing at programme level, finance provided by the financial intermediary and other investors of finance paid by third parties at project level⁴⁶.

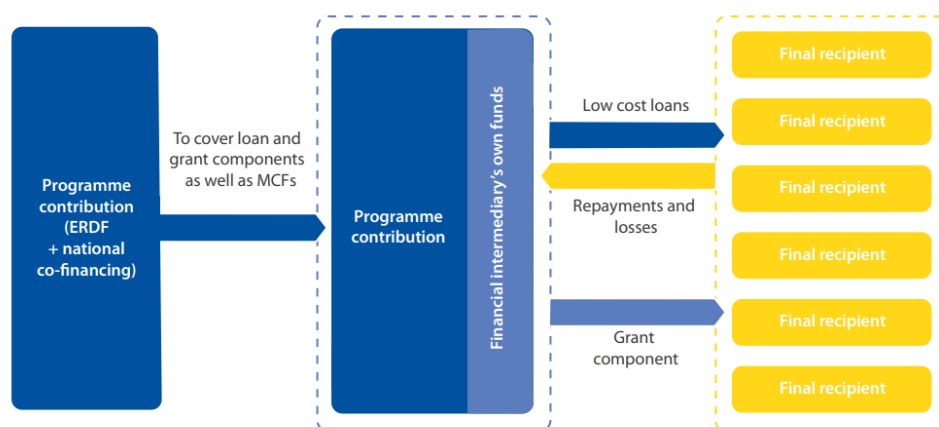
⁴² A detailed exemplification is provided in the Combinations of financial instruments and grants under shared management funds in the 2021-2027 programming period, fi Compass May 2021, to which is being referred.

⁴³ [Model for a financial instrument with a grant component to support energy efficiency \(fi-compass.eu\)](https://www.fi-compass.eu/resources/factsheets-and-brochures/model-for-a-financial-instrument-with-a-grant-component)

⁴⁴ Further information as to the use of grants in combination with financial instruments can be found in related fact sheet: <https://www.fi-compass.eu/resources/factsheets-and-brochures/model-for-a-financial-instrument-with-a-grant-component>

⁴⁵ The eligibility requirements for the EE projects are further described in the EEFI Model, to is referred.

⁴⁶ [Model for a financial instrument with a grant component to support energy efficiency \(fi-compass.eu\)](https://www.fi-compass.eu/resources/factsheets-and-brochures/model-for-a-financial-instrument-with-a-grant-component)



Source: EEFI, fi Compass (European Commission, European Investment Bank, May 2022)

Combination of financial instruments and grants is also possible in two separate operations. In this case the combination of funds is done at final recipient level (and not at financial instrument level), where each form of support remains submitted to its own rules e.g. in terms of eligibility and payment.

For energy efficiency investments, the rationale for combination of grants and financial instruments is often due to the aim of achieving ambitious energy savings within a reasonable timeframe, and to engage in deeper renovation projects, to reduce the cost of repayable financing as well as to decrease the perceived risks of specific market segments (e.g. homeowner associations). Further, the potential advantages for grants under combined instruments as compared to stand-alone grant schemes include, amongst others, possible 'up front' payment to final recipients – with the grant component may even be paid in advance of the expenditure, which is a significant advantage compared to traditional grants.⁴⁷

However, financial instruments/grant combination and increased financial instrument uptake is obviously not the only path needed to facilitate increased EE investments. There is also need for technical assistance (TA) and advisory support grants for developing project pipelines of mature projects for implementation, as well as for administration of projects.⁴⁸ Other types of best practices on TA include 'centres of excellence' or one-stop shops as entry points at national or regional level, along with combined financial instruments and grant operation with separate guarantee instruments.

The fi Compass⁴⁹ work by the EIB and the European Commission is instrumental in providing guidance at a general level on lessons learned on combination of financial instruments and grants. Lessons learned and background studies from

⁴⁷ fi Compass Knowledge Hub – combination of financial instruments with grants

⁴⁸ As long as respecting the general criteria of Art. 52(5) of the CPR, that grant support must be directly linked and necessary for the financial instrument.

⁴⁹ fi-compass | Financial instruments under the European Structural and Investment Funds (ESIF)

fi Compass on general challenges and opportunities for financial instruments to support energy efficiency investments in the 2021-2027 EU programming period have served as point of departure for the current assignment, complemented by Member States level analyses of market failures and barriers to investments for Member States having the largest potential for using such instruments⁵⁰.

National Member State examples highlighted in case studies by fi Compass to inspire Member State Authorities and financial institutions in relevant ways of supporting EE projects without crowding out other sources of finance include amongst others:

- > *Lithuania – 'Modernisation Loan' Financial Instrument:* A single product for homeowners known as the 'Modernisation Loan Financial instrument', in combination with grants, have been used by Lithuania's Ministry of Finance and Ministry of Environment to fund loans to support EE investment in apartment block buildings in Lithuania. The Lithuanian Modernisation Loan is key to the government's programme to improve energy efficiency in residential properties. Grants are used in combination with the financial instruments to fund technical support to support project development (ensuring a robust pipeline of investment ready eligible projects designed to meet the required standards of quality and energy performance), interest rate subsidies and capital rebates and a 'one stop shop' service arrangement was established that has proven key to the successful delivery of the programme⁵¹.
- > *Greece – Energy Savings in Existing Housing' programme:* Two products were provided by the Greek Programme: (a) a loan having a commercial and a subsidised component and (b) a grant as non-repayable support covering part of the investment costs, the cost of the energy audit and the project consultant. The proportion of these elements varied depending on the income of the homeowners. The 'Energy Savings in Existing Housing' Programme provided from 15% to 70% non-repayable support, whereas the remainder was offered as a mandatory partially subsidised loan with no collateral, with or without a guarantor, no loan approval expenses and a minimum maturity of four years or a maximum of six years with one year grace period. The loan-grant combination was provided to final recipients through four financial intermediaries acting as 'one-stop-shop'.⁵²

Also, the Private Finance for Energy Efficiency (PF4EE)⁵³ instrument, funded by LIFE, has a number of highly relevant experiences for private energy efficiency investments.

⁵⁰ E.g. [Knowledge Hub Combination report 0.pdf \(fi-compass.eu\): The potential for investment in energy efficiency through financial instruments in the European Union | fi-compass](#)

⁵¹ [Residential energy efficiency financial instruments in Lithuania \(fi-compass.eu\)](#)

⁵² [Energy Savings in Existing Housing Programme, Greece Case Study \(fi-compass.eu\)](#)

The Working Group has encouraged participation of its members with specific knowledge of EE investments from Member States to draw on good practice examples and insights from the national level, in order for EEFIG to provide more operational guidance on the topic. These examples have been presented and discussed at the respective Working Group meetings.

4 Mobilising partners and WG members

The present chapter describes the strategy behind the mobilisation of the EEFIG community and other relevant market actors for the SR-11 study. Furthermore, the list of WG members are presented.

4.1 Mobilising interest by FIs

To ensure a broad but appropriate representation of the different relevant EEFIG members in the Working Group a proposed composition of the group in terms of types of members involved and necessary competences was defined.

A call for expression of interest to participate in the WG was made by invitation to selected members of the EEFIG community. It included a short outline of the scope and task of the group and stressed the importance of this work in light of the Fit for 55 package and the Recovery and Resilience Plans submitted to the Commission by the Member States.

In light of the specific MFF 2021-2027 context and the specificity of the questions at hand, participation of key EC institutions in the context of the MFF as well as representatives of the FIs and NPBs expected to scale up MFF funding were given preference over broader EEFIG membership participation. Given the focus on the EU funds from the financial institutions and investors' perspective, it was agreed with DG ENER that a very focused member group with existing experience with the relevant EU funds was preferred.

4.2 The WG Composition

Through communications to past EEFIG participants, bilateral outreach to close contacts in networks, and additional WG member suggestions resulting from outreach and discussion with DG ENER, a dedicated working group with a good balance between the various needs of this assignment was established. The SR-11 WG thus include a balanced across:

- > Commission experts
- > Financiers and investors as well as energy efficiency finance experts
- > EU MS and regional coverage with some international expertise
- > Public and private sector experience
- > Experience with the various key EU financial instruments and best practices being reviewed

Below we present the list of working group members invited. Significant participation of experts from relevant MFF funding sources, as well as EU/Member State representatives involved in the RRF and ERDF/CF funding and stakeholders with involvement in PF4EE and Horizon Europe was prioritised.

Process wise, the consultant drove the overall process on the report. However all Working Group members are strongly encouraged to take very active part in the formulation of findings and recommendations to ensure ownership and dissemination and implementation of results.

Table 4-1 Working group members for SR-11 on EE financing Post 2020

Name	Organisation/position	Focus
Adrien Bullier/Kamila Paquel	CINEA	Horizon Europe, LIFE
Martin Koch	DG ECFIN	InvestEU, RRF
Krzysztof Kasprzyk/Tsuyatko Velikov	DG REGIO	ERDF/CF
Aron Kerpel-Fronius	DG REGIO	ERDF/CF, RRF
Roman Doubrava	CINEA	EU's Innovation Fund; EU's Modernisation Fund
Florian Flachenecker	SG RECOVER	Recover and Resilience Facility (RRF)
Lada Strelnikova	Deutsche Bank	Private sector finance
Dominic Keyzer/Sandra Schoonhoven	ING	Private sector finance
Shane McCullough	The Strategic Banking Corporation of Ireland	NPB/National Fund; MS/regional level
Christopher Flensburg	Head of Climate and Sustainable Finance, SEB	NPB/National Fund; MS/regional level
Murray Birt	Senior ESG Strategist, DWS	Private sector finance
Martin Berg	Head, Environmental Funds, EIB	EU funds
Ralf Goldmann	Head, Energy Efficiency and Energy Advisory, EIB	Energy Efficiency Finance
Sarunas Bruzge/Isidoro Tapia/ Tatiana Bosteels	European Investment Bank	Energy Efficiency Finance
Yucel Inan	Green Economy Finance Facilities, European	EU Funds, PF4EE

Bank for Reconstruction and Development		
Dimitar Dukov	Bulgarian EE and RE Fund	NPB/National Fund; MS/regional level
Justinas Bucys/ Renata Adomavičienė	VIPA	NPB/National Fund; MS/regional level
Adam Hirny	International Financial Institutions and Sustainable Growth Programmes Bureau, BNP Paribas Bank Polska SA	NPB/National Fund; MS/regional level
Drahomíra Lamserova/Jan Rosen	Komerční banka, CZ	NPB/National Fund; MS/regional level
Yannis Konsolas	Dev. & Sustainable Banking, Piraeus Bank, Greece	NPB/National Fund; MS/regional level
Angel Luis Garcia Gomez	Group Santander, Spain	NPB/National Fund; MS/regional level

The final list was discussed and agreed with the EC. A few participants were new to EEFIG however brought considerable experience within energy efficiency financing at Member State/regional level, in particular from NPB perspectives and PF4EE financing of projects.

4.3 The Four Working Group meetings

> Schedule of WG meetings and deliverables

The WG meetings and the deliverables of the Working Group are summarised below⁵⁴.

Table 4-2 Key meetings and deliverables

Meetings / Deliverables/Theme	Timing
Working Group meeting #1: Preliminary scoping	22 March 2021
Working Group meeting #2:	22 September 2021

⁵⁴ A request for a time extension was made in a separate request due to the unforeseen delay of the project. Table is made based on contract amendment.

Meetings / Deliverables/Theme	Timing
Focus on key funds, instruments and challenges with focus on RRF	
Working Group meeting #3: Focus on key funds, instruments and challenges with focus on ERDF/CF and PF4EE	6 April 2022
Draft Final Report	25 April 2022
Working Group meeting #4: Draft conclusions and draft cross cutting recommendations	27 April 2022
Final Meeting with DG ENER	Within 20 working days from the submission of the draft final report: Week of 16 May 2022
Final Report	No later than 30 May 2022

The first WG meeting (22nd of March 2021) focused on introduction, background and scope of the working group and priority subjects for remaining WG meetings. FI and Commission representatives expressed mutual interest in learning from the practical challenges faced in EE financing. FIs expressed interest in guidance on combination of EU funds from the EC and stressed the need for guidance to private players on how to navigate in the MFF funding opportunities.

The second WG meeting (22 September 2021) focused on key funds, instruments and challenges with a focus on the Recovery and Resilience Facility and how the RRF can be combined with public and private finance along with a presentation of relevant financial instruments and energy efficiency related programmes and a preliminary analysis of the Member States' Recovery and Resilience Plans available at the time of the WG meeting.

The third WG meeting (6 April 2022) focused on key funds, instruments and challenges with focus on the Cohesion Funds (ERDF/CF) and the need for activation of support tools including the new requirements and finance needs stemming from the recently proposed EED and EPBD directives. The WG meeting benefitted from presentation by DG REGIO and discussion of the upcoming model financial instrument to support EE investment projects that combine grants with loans in a single financial instrument operation ("EEFI")⁵⁵ and presentations made by NPBs and national public investment

⁵⁵ [Model for a financial instrument with a grant component to support energy efficiency \(fi-compass.eu\)](https://fi-compass.eu)

agencies on experiences working with energy efficiency investments in the framework of the PF4EE and the MFF 2014-2020.

The fourth and final meeting (27 April 2022) aimed at presenting the draft conclusion and draft recommendations as the final outcome from the SR11 Working Group before presenting the final report to DG ENER.

5 WG working methods and deliverables

The present chapter provides a description of the working methods of the working group, including a proposed focus for the individual meetings, and a description of the communication channels used between meetings. Finally, the expected deliverables of the working group and the related workplan are outlined.

5.1 The role and working methods of the Working Group

The representatives of FIs and NPBs in the WG have been encouraged to share their experiences with use of specific MFF related financial instruments, their delivery models and what have been the barriers hitherto and what are the expected barriers and challenges going forward. This has taken place through regular WG meetings with all meetings being moderated by the project manager or her co-lead. The project team has prepared minutes and organized the communication.

With the agreed emphasis on the RRF and ERDF/CF, the WG has identified relevant possible actions and initiatives to significantly scale up energy efficiency investments as part of the proposed funding sources for the current 2021-2027 MFF and later upcoming MFF. WG members were asked to review the draft final report prepared by the Consortium and support the dissemination of outcomes via their own networks. Also, the EEFIG Rapporteur was briefed on progress and emerging results prior to the EEFIG Plenary Meeting planned for May 2022.

Key results of the Working Groups such as the final report with recommendations for actions will finally be published on the Commission's EEFIG website.

5.2 Coordination with other WGs

The Working Group activities has drawn on relevant existing initiatives and work done by other EEFIG WGs, in particular the WG on EE improvements in Industry, the WG on Monitoring of Financing Practices, the WG on de-risking EE finance, the WG on the EE1st Principle as well as the ongoing work on expanding the DEEP database.

The final output besides the final report also includes a 6-8 pages document targeted policymakers focusing on the recommendations for the next MFF. The Working Group recommendations have sought to have focus on how to improve operational guidance on how to combine funds and financing.

6 Conclusions

The work of the EEFIG SR11 Working Group has led to the following conclusions on current barriers, challenges and opportunities in the energy efficiency financing and investment market. The Working Group also proposes actions and initiatives that can upscale energy efficiency investments for the current MMF (2021-2027) and the next MFF (2028-onwards). Chapter 7 on Recommendations elaborates in more detail the recommendations by relevant stakeholder category (European Commission, Member States, Financial Institutions).

- > Already the EEFIG Working Group on Financing Practises noted in its final report (November 2021) that "An additional EUR 275 billion per year is necessary over the period 2021-2030 in order to reach EU energy and climate objectives in 2030 for buildings and that EEFIG sees an investment gap in the order of EUR 14 billion per annum to reach the current European climate and energy goals for industry". The recent REPowerEU Plan Communication and related EU 'Save Energy' Communication stress the need for a strengthened cooperation with financial institutions on energy efficiency investments, to mobilise their active commitment toward the achievement of the REPowerEU and the European Green Deal objectives and for examining additional ways to trigger further private investments.
- > Given the limited availability of public funding and acknowledging that most EE investments will have to be made with private sector funding, making the best use of all funds available in the context of EU Multiannual Financial Framework 2021-27 is critical for reaching the current EU energy efficiency targets. In the context of the REpowerEU implementation, energy efficiency targets are expected to be further increased by the co-legislators, and energy savings are crucial in both the short term and mid- to long-term. Limited public funds should therefore act as a catalyst for private finance and the risk of crowding out private finance should be minimized. This calls for increased use of blending of private commercial loans with public grants, public guarantee facilities, and public funds for enabling activities including facilitation and advisory.
- > The European Commission has, with the Fit for 55 package, introduced new measures on financial incentives, advisory tools, assistance instruments and guidelines for energy efficiency. These aim to facilitate the combining of funds and the scaling up of energy efficiency finance across Member States along with new legislative initiatives to increase energy efficiency targets and boost energy efficiency investments. In addition to this, the REPowerEU further increased the ambition by proposing to increase the binding target in the Energy Efficiency Directive to 13% and encouraged additional savings and energy efficiency gains in buildings through the Energy Performance of Buildings Directive. It foresees strengthening the cooperation with financial institutions on energy efficiency investments and mobilizing

Member States' active commitment toward the achievement of the REPowerEU and the European Green Deal objectives. In particular, a high-level European Energy Efficiency Financing Coalition including the financial sector and Member States is foreseen to succeed EEFIG, and will likely focus on additional ways to trigger further private investments, such as mortgage portfolio standards and pay-for-performance schemes will be examined.

- > Member States, on their side, have found it difficult to establish a pipeline of sound and well-prepared energy efficiency investment projects combining EU funds with private finance, eg. due to, amongst others, different legal frameworks. Going forward, Member States will need to provide appropriate financing, support measures and other instruments able to address market barriers and stimulate the necessary investments in energy efficiency, while drawing on Union-level mechanisms such as the Recovery and Resilience Facility, the Cohesion Policy funds (ERDF/CF) and InvestEU. In parallel, Member States will need to provide conducive framework conditions for scaling up private financing, including removal of regulatory barriers and avoidance of public support mechanisms that crowd out rather than facilitate private financing. Encouraging and facilitating future blending will require technical assistance to Member State actors but also to financial intermediaries on how to prepare energy efficiency projects and project portfolios in practice.
- > Member States also face challenges using their resources effectively to achieve their energy efficiency targets and the EU's common energy goals. This is partly rooted in the fact that indicators for monitoring progress against targets are not available in a sufficient level of detail at the Member State level. This makes it difficult for the Commission to monitor progress overall as data from different Member States is not comparable or cannot be aggregated. This aspect appears to be continued also in future monitoring of the potential impact of measures under the REPowerEU.
- > Financial Institutions and private investors will have to be heavily involved in this process to maximise investments and overall impacts, to address current finance-related barriers in the market and implement best practices for scaling up investments tailored to the main EU funding vehicles, e.g. through combining funds/blending and to identify non-finance related issues/barriers as relevant, drawing on the lessons learnt from the MFF 2014-2020 framework.
- > Investor interest in energy efficiency investments is increasing overall due to a pressing climate and energy security agenda. Energy efficiency investments has so far often come with perceived uncertainty. Growing evidence that the risks associated with energy efficiency investments are lower than the level perceived by markets is emerging. Platforms, tools and mechanism to provide overview of investments, to assess risks and opportunities associated with a

particular project and for actual de-risking energy efficiency investments are appearing in the market.

- > Lack of effective mechanisms to combine financing sources (e.g. grants and financial instruments) was repeatedly identified as a major implementation barrier for the MFF 2014-2020. Several NPBs have faced difficulties in combining support with EU structural funds (e.g. due to legal framework challenges and eligibility criteria) negatively affecting the building and financing of energy efficiency investment projects.
- > The 2021-2027 programme aims to simplify and extend options for combining financial instruments and grants and allows also for disbursement of the combined support directly to final recipients. The new Commission and EIB initiative on a model financial instrument with a grant component ("EEFI")⁵⁶ combining grants with loans in a single financial instrument operation is expected to be instrumental for rolling out further energy efficiency investments at Member State level at a higher speed. EEFI will, once adopted, provide options for combining loans and grants including: Technical support grant (including setting up a one-stop shop); interest rate subsidy (to ease the cost of borrowing); capital grant for households with low income (who are not able to provide co-financing); and capital rebate or capital grant linked to performance (achieving a given level of energy saving).
- > Financial instruments/grant combination and increased financial instrument uptake cannot stand alone. It becomes clear when assessing the current state of play related to Member States' programming of MFF 2021-2027 funds for energy efficiency finance that Member States are still doing 'business as usual' i.e. applying for high amounts of grants for energy efficiency investments. The multiplicity of funds available for energy efficiency makes it possible for Member States to continue choosing grants, e.g. to use Recovery and Resilience Facility (RRF) grants for energy efficiency investments, based on National Recovery and Resilience Plans (NRRP). Energy investment under the NRRPs has earmarked €54.85 billion (62% of the total) for energy efficiency measures. Based on most recent RRF figures and analyses⁵⁷, the majority of EUR 54.85 billion dedicated for energy efficiency will finance renovations of buildings, with these investments focusing on the residential sector. However, it is also obvious that other significant sources financing will be required. Comparing the 2021-2026 investments planned for energy efficiency under the RRF (€54.85 billion) and the annual investment needs in the

⁵⁶ [Model for a financial instrument with a grant component to support energy efficiency | fi-compass](#)

⁵⁷ [EP Briefing Next Generation EU \(NGEU\) delivery: Energy policy in the national recovery and resilience plans, based on RRF scoreboard and NRRP annexes \(EPRS, October 2022\)](#)

residential sector estimated by the European Commission (€180.1 billion) shows the finance gap.

- > In order to turn the current situation away from using high amounts of grant finance, focus needs to be shifted from the EU fund level and more towards the actual preparation of project pipelines, investor commitments and implementation at Member State level. Complementary support in the form of technical assistance (TA) and advisory support grants for developing project pipelines of mature projects for implementation, as well as for administration of projects is thus very much needed to turn this situation towards more co-financing and private sector finance in general. Other types of best practices on TA include 'centres of excellence', ELENA TA facilities or one-stop shop (OSS) as entry points at national or regional level, along with the ability to easily combine financial instruments and grant products with separate guarantee instruments.
- > The regulatory ecosystem for sustainable finance including the EU Taxonomy Regulation, the Sustainable Finance Disclosure Regulation (SFDR), and the Corporate Sustainability Reporting Directive (CSRD) are important frameworks for channelling private sector investments towards sustainable activities. Separately, mainstreaming of the EE 1st criteria in public and private financial institutions is an important policy objective, but embedding the criteria in regulatory frameworks such as the EU Taxonomy may require separate efforts for priority activities such as renovation of existing buildings. Private FIs will naturally give priority to regulatory compliance and regulatory vesting of the EE 1st criteria would therefore ensure their full attention.
- > In terms of mobilising private sector financing for buildings, it will be very important that public FIs (EU, international and public national financial institutions, including national promotional banks), and private FIs (banks, pension funds, insurance companies, large asset managers and other specialised investors) all provide a credible commitment to integration of the EE 1st principle in the lending and investment policies and operational activities. As a source of inspiration for how this can be done, the actual implementation by EIB as presented at EUSEW22 will be a starting point to be supplemented later by the results of the EEFIG WG on Applying the Energy Efficiency First Principle in Sustainable Finance. The commitment should preferably through a strategy or action plan endorsed at the CEO and Board levels.
- > Sector specific conclusions and recommendations on buildings were presented by the EEFIG Working Group on financing practices (November 2021) and are still relevant for implementation of the current MFF and for further implementation support at MS level:
 - > Member States were encouraged to adopt minimum EPCs for existing buildings aligning with EU climate and energy targets, and

- > In parallel, the European Commission were encouraged to scale-up its funding for TA, including its delivery via one-stop shops and other retail-facing platforms and organisations to support building owners and local authorities improve the EE of their buildings. Funds should be used to incentivise MS to put in place similar TA facilities, financed with their national funds and by national promotional banks (NPBs). Funds should also help MS to increase the amount of grants available for building renovations, and in the provision of fiscal incentives. Grants should be focused on low-income homes, SMEs with difficult access to finance, on blended finance for deep renovations and to facilitate the market entry of clean and EE technologies in their early penetration phase.
- > Also at the sector-specific level, conclusions of the EEFIG Industry WG (March 2022) as to industry and Small and Medium-sized Enterprises (SMEs) included key recommendations on:
 - > Industry implementing Energy Management Systems (EMS), audits and identified projects; engaging with EC and Member States authorities on stable framework conditions, markets for new low carbon and bio-based products; support for measures to improve their energy performance, and access to infrastructure that can enable electrification through sector organisations; using the EU ETS and EU funding opportunities with grants supporting technology innovation (Horizon Europe, Innovation Fund, etc.) as a strategic tool for the carbon-neutral energy transition.
 - > Member States developing partnerships with business and sector associations on decarbonization, such as voluntary agreements, to ensure they work towards meeting the long-term climate and energy objectives; developing support programmes to facilitate the uptake of cost-effective measures identified in mandatory audits and energy-intensive industrial SMEs; supporting the development of markets for green products including through green public procurement.
 - > EU institutions continuing to embed EE 1st principles into climate and energy policies; support R&D in innovative technologies for Energy Intensive Industries; support dedicated business models for SMEs; and support development of industry sector roadmaps for climate neutrality.

- > Financial Institutions embedding EE 1st principles in lending policies; integrating EE in risk assessment and product development; and using available de-risking tools to support EE financing market development.

More specifically, the Working Group members have also pointed to:

- > A continued need for Technical Assistance to intermediaries and final beneficiaries, e.g.. through TA facilities for project development, capacity building and awareness raising activities.
- > A need for making it easier for FIs/private players to navigate in the MFF funding opportunities, e.g. through roadmap(s) to facilitate navigation in the MFF funding opportunities; clear and practical guidance on combining/blending of grants and loans, to ensure that focus is not only placed on commercial projects (less than deep renovations, etc) and simple standard documentation.
- > It should be better investigated in which ways grants should be used to extend the scope of EE funds, e.g. further differentiation in the use of grants, for example through ex-ante assessments for identification of sectors in particular need of grants.
- > Implementation experience from the 2014-2020 MFF had pointed, in particular, to need for simplification in relation to eligibility criteria, less complex reporting, and need for technical assistance from local/national consultants. Use of targeted eligibility tools (calculator of primary energy savings, NPV etc. and calculator for evaluation of projects) have significantly accelerated loan preparation and processing.
- > Experience from 2014-2020 show need for a better combination of energy efficiency investments with RES investments and GHG reductions in project portfolios, as also now encouraged in the REPowerEU. There is a need for interinstitutional and intersectoral cooperation as to EE-RE cooperation, ideally being combined in same priority and FI.
- > Other challenges relate to municipal lending limits, challenges with the complexity of ESCO and PPP models (important for accelerating renovation of smaller public buildings).
- > Limitation due to turmoil in global markets (both higher energy prices and higher renovation costs).
- > Reflecting on how well the current MFF 2021-2027 architecture has worked in terms of accelerating energy efficiency finance, the scale of energy efficiency finance in the current MFF has been almost tripled since the previous MFF in 2014-2020, programming has been simplified and synergies have been sought across the EU Funds.
- > However, tentative findings also suggest that energy efficiency is one of several priorities and the energy efficiency topic tends to drown

somewhat in Member States' prioritization in competition with many other priority areas within the energy sector and beyond. The multiplicity of EU funds open for energy efficiency support makes it difficult to assess the cumulated energy efficiency finance and impacts in the Member States across allocated EU funds (e.g. the impact of grants from the ERDF and the RRF, including potential support from the Just Transition Fund, guarantees from InvestEU, etc. in a given Member State). Also lack of data and clear monitoring mechanisms towards the energy efficiency targets makes it difficult to track progress in Member States against targets.

- > The Working Group found it premature to assess impacts of the MFF 2021-2027 architecture when programmes under the MFF (ERDF) and the Recovery and Resilience Plans (RRPs) were still under development at the Member State level and being negotiated with the Commission services. The initial view of the Group is that despite the scaling up of funds dedicated to the energy efficiency area, the different actors tend to undertake their work the same way as usual and still rely heavily on grants.
- > Rather, the Working Group encourages the Commission to address energy efficiency investment impacts under the current 2021-2027 architecture and Member States' progress towards the Energy Efficiency targets as a thematic evaluation theme at the Mid-term Review of the current MFF in 2023.
- > Based on the outcome of a targeted Mid-term Review with a focus on energy efficiency investments, the Commission may then consider whether energy efficiency needs further prioritization at EU level as part of the REPowerEU agenda. Depending on the outcome, such additional measures to be considered may cover, but not limited to, potential reallocation measures for energy efficiency investments at the MFF level; launching of specific sector programmes dedicated to EE targets vested in the EPBD and EED; or a specific EU facility or bank dedicated to be market maker for energy efficiency projects identified at Member State level.
- > In parallel with potential EU-level steps, further measures should include increased technical assistance for project- and portfolio preparation measures, for instance through existing and planned one stop shops at Member State level. Such measures can support Member State actors in channelling EU funds as enablers for mobilisation of private funds.
- > The biggest impact can obviously be obtained by the proposed measures if initialised in the current MFF 2021-2027, however the suggested measures are equally relevant for the next phase of the MFF from 2028-onwards to mobilise private sector finance.

7 Recommendations

Based on conclusions, the work of the EEFIG Working Group has led to the following recommendations for the MFF 2021-2027 and beyond. The Working Group recommendations are targeted at the Commission, the Member States and the Financial Institutions. The recommendations focus on (i) mobilisation of private funds, including (ii) further facilitating blending and match making of public and private funds and reducing the risk of grants crowding out private funds; and (iii) supporting Member States in preparing relevant technical assistance and one stop shops for well-prepared and well-documented energy efficiency projects.

European Commission:

- > Conduct a targeted thematic energy efficiency Mid-Term Review of the MFF 2021-2027 focusing on energy efficiency investment challenges and impacts; Member States' progress towards the Energy Efficiency targets using the MFF, and how to further facilitate the use of EU funds for the mobilisation of private funds, as part of the overall Mid-term Review of the MFF in 2023.
- > Consider whether energy efficiency needs further prioritization at EU and MFF level and through which measures. Measures may include, but not be limited to, potential reallocation measures for energy efficiency investments at the MFF level; launching of specific sector programmes dedicated to EE targets vested in the EPBD and EED; or a specific EU facility or bank dedicated to be market maker for energy efficiency projects identified at Member State level. Besides this, efforts should be focused and reinforced at the Member State level.
- > Develop guidance for Member States on designing a good financing architecture that reflect the differences in financing for different types of assets and avoid over subsidisation, leading to crowding out of commercial financing.
- > Develop roadmap(s) on how to unlock private sector investments in energy efficiency for both Member States and market actors and on how to facilitate navigation as well as guidance on combining funding sources (e.g. loans, grants and public, private) as well as state aid rules across different funds under the MFF 2021-2027.
- > Encourage EEFIG to focus more on the MS/national level and MS public and private actors as part of the vision for a new Energy Efficiency Financing Coalition presented in the Communication EU 'Save Energy' as part of REPowerEU.
- > Ensure consultation on potential new models for financial instruments with EEFIG members including NPB Association and Group of PF4EE banks to draw on experiences from the MFF 2014-20, including in relation to piloting combination of grants and loans.

- > Consider how to focus on de-risking higher-risk financing (poorer households, SMEs, emerging technologies).
- > Assess/summarise why absorption of funds is low and make relevant adjustments or provide support/guidance to Member States on how to increase absorption.
- > Consider specific aspects to be addressed in the different sectors and whether targeted partnerships can be beneficial for industry, data centres, including in terms of defining the pathways for accelerating EE investments.
- > Develop guidance for Member States on, and examples of, clear/simple communication tools/methods to promote EE investments at the MS/regional/local level.
- > Consider options for regulatory vesting of the EE 1st criteria in relation to sustainable financing for renovation of existing buildings, e.g., in the DNSH criteria for climate change mitigation under the EU taxonomy regulation.
- > Ensure creation of an in-depth overview of private energy efficiency financing across the Member States in the framework of the EED and EPBD recast to mitigate the current gap of private sector EE financing data in the EU27. The Commission should consider issuing a data collection strategy with data sources and reporting structures that can ensure data being collected for comprehensive monitoring of national and private investments in energy efficiency so that the current investment gap can be further qualified and monitored.

Member States:

- > Focus on maximising impact of available EU funds rather than degree of support for individual projects.
- > Ensure the implementation in practice of the Energy Efficiency First principle for public investments and public lending and investment policies and operational activities.
- > Use grant components to improve the project preparation and encouragement of deeper renovations including improving affordability for low-income households.
- > Engage with FIs in developing investment strategies and work closely with NPBs and national commercial banks on blending commercial finance with public grant or guarantee elements and scaling up EE financing, e.g., through facilitation and support provided by one stop shops.

- > Consider consultation/involvement of NPBs at an early stage, e.g., in the preparation of Partnership Agreements and Operational Programmes, as relevant.
- > Gather public data and use AI to analyse data to provide insights into the kinds of investments that pay off, the impacts on risk of different EE investments as it helps to de-risk.
- > Consider developing national roadmaps on financing (how much support, what form it would take, evolution over time, how to mobilise private financing).

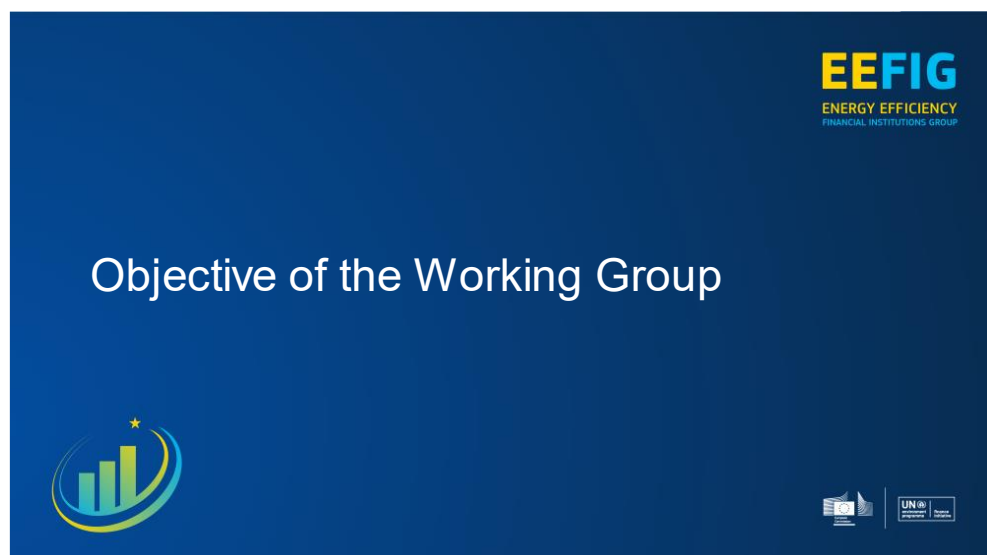
Financial Institutions:

- > Simplify existing products and communicate better with (potential) customers to nudge larger uptake of EE relevant products. Introduce mortgage products targeted towards energy renovation of buildings for potential new homeowners/clients (upon purchase of home) and existing clients (already with homes).
- > Speed up the implementation in practice of the Energy Efficiency First principle as to private sector investments. Ensure that in terms of mobilising private sector financing for buildings, private FIs (banks, pension funds, insurance companies, large asset managers and other specialised investors) should all provide a credible commitment to integration of the EE 1st principle in the lending and investment policies and operational activities.
- > Tag energy performance standard of underlying assets.
- > Develop targeted instruments and financial products for EE renovation of buildings to make them more energy performant.
- > Consider minimum savings thresholds to determine the amount of grant to ensure more effective use of public resources.
- > Work with national governments and NPBs on development of de-risking instruments such as blended financing and guarantees to mitigate credit risks related to especially low-income households and SMEs.
- > Work with national governments and NPBs on building EE portfolios and robust pipelines (and mainly for the next MFF 2028-onwards) support Member States in Partnership Agreements and Operational Programmes as well as information and awareness.

As to the MFF 2028- and beyond, the Working Group members expect that the new EEFI model with its flexible approach can be further tailored to specific national needs and the possibility for combining grants and financial

instruments will be beneficial for Member States and financial institutions to accelerate investments in energy efficiency. The Working Group members recognise, amongst others, the management solutions provided for in this model, disbursement mechanisms and the simplified reporting and monitoring arrangements. The EEFI has been launched in May 2022 and important lessons will be drawn in the coming years to be taking into account for the next seven-year MFF from 2028 onwards.

Appendix A Final presentation of main results, conclusions and recommendations



Objective and members of the WG

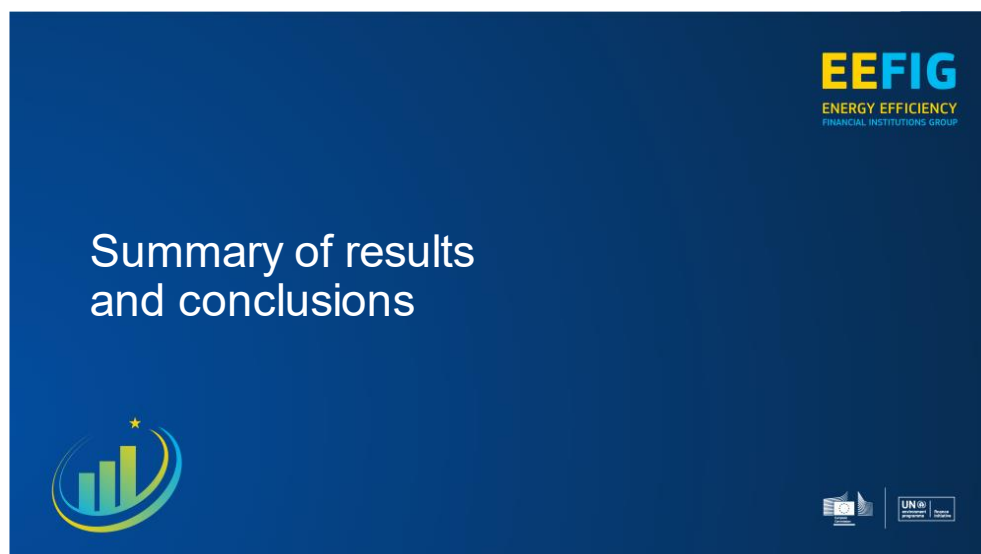
The objectives of the WG were to:

- Identify main barriers, challenges and opportunities in the energy efficiency financing and investment market
- Identify a list of actions, initiatives, strategies and assess their potential in terms of effectiveness to upscale energy efficiency investments
- An updated list and assessment of the most appropriate funding mechanisms in the framework EU 2021-2027
- Analyse and draw conclusions on how the financial architecture of the EU budget 2021-2027 works
- Preparation of the final working group report

The members of the WG were various stakeholders concerned with upscaling energy efficiency investments and in particular with the role of the financial architecture of the EU budget:

- Commission experts
- Financiers and investors
- EU MS and regional stakeholders
- Public and private sector experience
- Experience with various key EU financial instruments and best practices being reviewed

Significant participation of experts from relevant MFF funding sources, as well as EU/Member State representatives involved in the RRF and ERDF/CF funding and stakeholders with involvement in PF4EE and Horizon Europe was prioritised.



Conclusions: Importance of blending public and private funds

- Limited public funds should act as a catalyst for private finance and the risk of crowding out private finance should be minimized.
- This calls for increased use of blending of private commercial loans with public grants, public guarantee facilities, and public funds for enabling activities including facilitation and advisory.
- Lack of effective mechanisms to combine financing sources from grants and financial instruments was repeatedly identified as a major implementation barrier for the MFF 2014-2020, where several NPBs have faced difficulties in combining support with EU structural funds, e.g. due to legal framework challenges and eligibility criteria.
- The 2021-2027 program aims to simplify and extend options for combining financial instruments and grants and allows also for disbursement of the combined support directly to final recipients.
- The new Commission and EIB initiative on a model financial instrument with a grant component ("EEFI") combining grants with loans in a single financial instrument operation is expected to be instrumental for rolling out further energy efficiency investments at Member State level at a higher speed.



Conclusions: Need for TA to complement funds

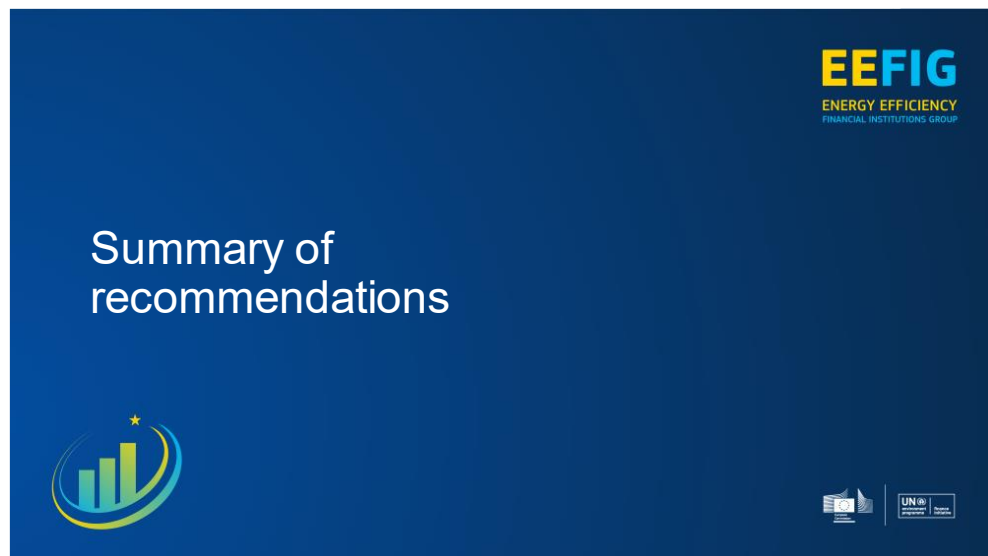
- Financial instruments/grant combination and increased financial instrument uptake cannot stand alone.
- Increased focus is needed on the actual preparation of project pipelines, investor commitments and implementation at Member State level.
- Complementary support in the form of technical assistance (TA) and advisory support grants for developing project pipelines of mature projects for implementation, as well as for administration of projects is thus very much needed to turn this situation towards more financing and private sector finance in general.
- Other types of best practices on TA include 'centres of excellence', ELENA TA facilities or one-stop shop (OSS) as entry points at national or regional level, along with the ability to easily combine financial instruments and grant products with separate guarantee instruments.





Conclusions: The role of regulation and voluntary initiatives

- The regulatory ecosystem for sustainable finance (the EU Taxonomy Regulation, the Sustainable Finance Disclosure Regulation SFRD, and the Corporate Sustainability Reporting Directive CSRD) is an important framework for channelling private sector investments towards sustainable activities.
- Separately, mainstreaming of the EE 1st criteria in public and private financial institutions is an important policy objective, but embedding the criteria in regulatory frameworks such as the EU Taxonomy may require separate efforts for priority activities such as renovation of existing buildings.
- In terms of mobilising private sector financing for buildings, it will be very important that public FIs (EU, international and public national financial institutions, including national promotional banks), and private FIs (banks, pension funds, insurance companies, large asset managers and other specialised investors) all provide a credible commitment to integration of the EE 1st principle in the lending and investment policies and operational activities.
- As a source of inspiration for how this can be done is the actual implementation of the Energy Efficiency First Principle by the EIB.



Recommendations for the European Commission

- Conduct a targeted thematic energy efficiency Mid-term Review of the MFF 2021-2027 focusing on energy efficiency investment challenges and impacts; Member States' progress towards the Energy Efficiency targets using the MFF, and how to further facilitate the use of EU funds for the mobilisation of private funds, as part of the overall Mid-term Review of the MFF in 2023.
- Consider whether energy efficiency needs further prioritization at EU and MFF level.
- Develop guidance for Member States on designing a good financing architecture that reflect the differences in financing for different types of assets and avoid over subsidisation, leading to crowding out of commercial financing.
- Develop roadmaps on how to unlock private sector investments in energy efficiency for both Member States and market actors and on how to facilitate navigation as well as guidance on combining funding sources under the MFF 2021-2027.
- Encourage EEFIG to focus more on the MS/national level and MS public and private actors as part of the vision for a new Energy Efficiency Financing Coalition presented in the Communication EU 'Save Energy' as part of REPowerEU.





Recommendations for the European Commission (cont.)

- Ensure consultation on potential new models for financial instruments with EEFIG members including NPB Association and Group of PF4EE banks to draw on experiences from the MFF 2014-2020.
- Focus on de-risking higher-risk financing (poorer households, SMEs, emerging technologies).
- Assess why absorption of funds is low and make relevant adjustments or provide guidance to Member States on how to increase absorption.
- Consider specific aspects to be addressed in the different sectors and whether targeted partnerships can be beneficial for specific sectors such as industry and data centres.
- Develop guidance for Member States on, and examples of, clear/simple communication tools/methods to promote EE investments at the MS/regional/local level.
- Consider options for regulatory vesting of the EE 1st criteria in relation to sustainable financing for renovation of existing buildings.
- Create an in-depth overview of private energy efficiency financing across the Member States in the framework of the EED and EPBD recast to mitigate the current gap of private sector EE financing data in the EU27.



Recommendations for the Member States

- Focus on maximising impact of available EU funds rather than degree of support for individual projects.
- Ensure the implementation in practice of the EE1st principle for public investments and public lending and investment policies and operational activities.
- Use grant components to improve the project preparation and encouragement of deeper renovations including improving affordability for low-income households.
- Engage with FIs in developing investment strategies and work closely with NPBs and national commercial banks on blending commercial finance with public grant or guarantee elements and scaling up EE financing, e.g., through facilitation and support provided by one stop shops.
- Consider involvement of NPBs at an early stage, e.g., in the preparation of Partnership Agreements and Operational Programmes, as relevant.
- Gather public data and analyse data to provide insights into the kinds of investments that pay off, the impacts on risk of different EE investments as it helps to de-risk.



Recommendations for Financial Institutions

- Simplify existing products and communicate better with customers to nudge larger uptake of EE relevant products.
- Introduce mortgage products targeted towards energy renovation of buildings for potential new homeowners/clients upon purchase of home and existing clients already with homes
- Speed up the implementation in practice of the EE1st principle as to private sector investments.
- Tag energy performance standard of underlying assets.
- Develop targeted financial products for EE renovation of buildings to make them more energy performant.
- Consider minimum savings thresholds to determine the amount of grant to ensure more effective use of public resources.
- Work with national governments and NPBs on development of de-risking instruments such as blended financing and guarantees to mitigate credit risks related to especially low-income households and SMEs.
- Work with national governments and NPBs on building EE portfolios and robust pipelines support Member States in Partnership Agreements and Operational Programmes as well as information and awareness.





Thank you!



Appendix B Presentation on the Recovery and Resilience Facility



The Recovery and Resilience Facility



- The **Recovery and Resilience Facility (RRF)** will make EUR 672.5 bn in loans and grants available to support reforms and investments undertaken by Member States
- The aim is to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions.
- A minimum of 37% of expenditure or EUR 249 bn should be related to climate action.
- In order to benefit from the RRF, Member States shall submit draft **Recovery and Resilience Plans** outlining national investment and reform agendas in line with the **European Green Deal** and the **2021 Annual Sustainable Growth Strategy**.
- The 2021 Annual Sustainable Growth Strategy and the Guidance on Resilience and Recovery Plans identified building renovation as a priority for national recovery plans under the **European Flagship 'Renovate'**.
- Renovate will substantially contribute to achieving the EU's climate objectives, create a large number of local jobs throughout the Member States and foster digital development through smart living and metering.
- The goal is that by 2025, it will contribute to the doubling of the renovation rate and the fostering of deep renovation.
- This is furthermore reflected in the October 2020 **Renovation Wave Strategy**.



Combining the RRF with public and private finance



- The RRF can be combined with support from other Union programmes such as InvestEU, Connecting Europe Facility, LIFE and Horizon Europe. Similarly, the RRF can be combined with national funds - in particular to ensure the replication and scaling up of planned national support schemes (for example for energy efficiency in buildings).
- However, the investment need cannot be met by public sources alone and mobilization of significant amounts of private finance is necessary for meeting the goals.
- The Commission will strengthen the access to attractive private financing through the **Renewed Sustainable Finance Strategy** and the **EU taxonomy for green activities** which will encourage greater focus on green financing at banks and investors.
- Furthermore, EU and national public funds can be more effectively targeted and better channeled to the end-users by making it easier to **blend various sources of financing**, making the intensity of support proportional to performance, strengthening technical or project development assistance and **promoting synergies with market-based mechanisms**.
- Finally, Member States should mobilise private financing to complement the deployment of EU co-funded programmes. In this context **InvestEU** will act as a single EU-level investment support programme to provide technical assistance and financing backed by an EU budget guarantee to unlock private investments.
- In this context, **an inspirational catalogue of options for leveraging the RRF with private finance through financial instruments is needed**.



The RRF as leverage for private finance for energy efficiency The financial instruments



The overview of opportunities for energy efficiency financing leveraging the RRF with private finance through financial instruments will look at the financial instruments foreseen in the context of the RRF*. The following financial instruments will be covered:

1. **Grants blended with other sources**, can help mobilize additional public and private funding but also carries the risk of crowding out other sources
2. **Blended loans and guarantees**, for home renovation support scheme to increase the energy and resource efficiency of residential buildings and social housing.
3. **Energy performance contracting**, energy and resource efficiency scheme / ESCOs for public buildings, health and social infrastructures based on comprehensive energy performance contracts.
4. **On-bill financing schemes**, linking the loan for renovation to the property meter (not the owner or occupant) and allowing repayment via electricity or heating bills.
5. **On-tax financing schemes**, up-front financing to homeowners, with the repayment obligation tied to a property (not its owner) and municipalities channeling the repayment via a special levy collected with the property tax bill.
6. **Micro-credits backed by a guarantee fund**, to promote fair cost-sharing between owners and tenants.
7. **Energy efficiency mortgage-based lending (covered bonds)**, standardised mortgage financing mechanism, where improvements in the energy efficiency of buildings may access preferential conditions linked to the mortgage.
8. **Green bonds**, aggregation and syndication of green mortgages for access to attractive market rates based on sustainability premium.

Note*: Each of the above are mentioned briefly in either the Communication on a Renovation Wave for Europe, the RRF Guide, or the Annex to the RRF Guide: Example of component of reforms and investments – Renovation wave aimed at enhancing energy and resource efficiency



The RRF as leverage for private finance for energy efficiency Related EU programmes



The overview of opportunities for energy efficiency financing leveraging the RRF with private finance through financial instruments will furthermore look at related EU programmes that may be combined with RRF. The following EU programs will be included:

1. **The RRF**, financing the renovation wave, supporting efficient district heating and cooling systems, fostering energy efficiency and carbon neutrality of industry, resilient smart grid and storage infrastructure.
2. **The InvestEU Fund**, mobilizing public and private investments using an EU budget guarantee for providing additional debt and equity financing.
3. **The Connecting Europe Facility (CEF)**, grants and risk mitigation instruments for energy transmission infrastructures of European importance (cross-border).
4. **Horizon Europe**, supporting research and innovation (pre-commercial technology).
5. **LIFE (including PF4EE)**, grants for pilot and demonstration projects, particularly technologies and solutions that are ready to be implemented in close-to-market conditions.
6. **Innovation Fund**, grants for innovative technologies in RE, EE, CCS/CCU and storage (pre-commercial technology).
7. **Modernisation Fund**, supporting 10 lower-income Member States in their transition to climate neutrality by helping to modernise their energy systems and improve energy efficiency.
8. **JTF**, additional matching funds for ERDF/ESF+, in support of e.g. productive investments in SMEs, clean energy, transformation of existing carbon-intensive installations.
9. **The InvestEU Advisory Hub and the Horizon Europe missions (one-stop shops)**, providing advisory support to investment projects.



Overview of financial instruments and programmes



Financial Instrument	RRF	InvestEU	CEF	Horizon Europe	LIFE/PP4EE	Innovation Fund	Modernisation fund	JTF	One-stop shops
Grants	X		X	X	X	X	X	X	
Blended loans and guarantees	X	X	X	X	X	X	X	X	X
Energy performance contracting	X				x				X
On-bill financing schemes	X				x		X	X	X
On-tax financing scheme	X								
Micro-credits backed by a guarantee fund	X								
EE mortgage-based lending	X			X	x				x
Green bonds	X		X		x				x



The financial instruments



Financial instruments: Grants



Instrument	Grants
Description	Grants are a fundamental instruments of most EU funding programmes. They can be blended with other funding sources, and can help mobilize additional public and private funding, but they also carries the risk of crowding out other sources of funding. Grants may be provided as a lump sum payment against agreed project milestones (Innovation Fund) or based on documentation for actual costs incurred (Horizon Europe).
Target group	Projects that are socioeconomically beneficial (e.g. supporting EU policy objectives), but not financially viable without further assistance.
How would it work with RRF and other EU programs	A grant can be blended with other EU programmes (subject to the specific programme, applicable maximum co-funding rates and avoidance of double funding) or national public support from Member States (support to relevant state aid legislation).
Example	An RRF grant (subject to maximum co-funding rate) can e.g. be combined with an InvestEU loan (max. 50% of total costs) as long as the cumulative support from the EU programmes does not go beyond the eligible costs (in case of InvestEU the total project costs).



Financial instruments: Blended loans and guarantees



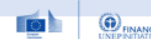
Instrument	Blended loans and guarantees
Description	Blending is an instrument designed to attract more investment, in particular from businesses and private investors, into new areas. The principle is to combine long-term financing from e.g. EIB, with EU grant financing and to attract loans or equity investments from public authorities and private financiers.
Target group	Private companies engaged in innovative projects in energy and climate, e.g. home renovation support schemes to increase the energy and resource efficiency of residential buildings and social housing.
How would it work with RRF and other EU programs	Grants, loans and guarantees can be combined provided that the cumulative financing does not go beyond the project's eligible costs and provided that the contributions do not cover the same costs. E.g combining Innovation Funds with that of LIFE, Horizon Europe, Connecting Europe Facility and the InvestEU Programme.
Example	Home renovation support scheme to increase the energy and resource efficiency of residential buildings and social housing: The RRF guidance example of component of investments supporting the renovation wave foresees that governments to address the challenge of high upfront costs of building renovation and the perceived long payback periods, the government may introduce a home renovation scheme where support will be provided in the form of guarantees and a grant component that will be made available for low-income households in line with the national Long Term Renovation Strategy.



Financial instruments: Energy performance contracting



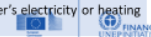
Instrument	Energy performance contracting (EPC)
Description	Energy Performance Contracting is a proven model for energy renovation of buildings by ESCOs. An Energy performance contract is a guarantee-based agreement between the client and the ESCO often with a third party guarantor. It often includes pooling of small-scale and scattered investments to reduce upfront costs and reward the energy savings e.g. through public-private partnerships involving ESCOs.
Target group	Public authorities with building portfolios and private sector clients (especially in advanced EPC markets). Mainly used for energy renovation of public buildings with a focus on social and affordable housing, public administration buildings, schools and hospitals.
How would it work with RRF and other EU programs	EPC can work alongside an RRF grant and other EU support schemes. EPC can also be deployed alongside micro-credits backed by a guarantee fund to promote fair cost-sharing between owners and tenants, on-bill financing schemes and on-tax financing schemes.
Example	The guaranteeEE project under Horizon 2020 has successfully been developing innovative business and financing models addressing and overcoming the split incentives dilemma in performance based ESCO project. With a special focus on building owners in the private sector, EPC contract variants providing enhanced flexibility have been set up and an EPC pre-check tool has been developed. Energy and resource efficiency scheme for public buildings, health and social infrastructures based on comprehensive energy performance contracts. The RRF guidance example of component of investments supporting the renovation wave foresees that governments to address the challenge of high upfront costs and going beyond Article 5 of the Energy Efficiency Directive, an energy and resource efficiency scheme for public buildings, health and social infrastructures may be set up, based on comprehensive energy performance contracts. The focus will be on renovations of worst-performing buildings and those occupied by low-income households.



Financial instruments: On-bill financing schemes



Instrument	On-bill financing schemes
Description	A method of financing energy renovations investments that draws on utility bills as repayment vehicle. On-bill financing or on-bill repayment are two options for property owners to pay back part or all cost of investments in clean energy or energy renovations through their utility. On-bill financing has been in use for decades in USA and Canada, but has not yet had a significant impact on the residential energy efficiency building renovation market in Europe. Compared to traditional loans, default rates have been found to be lower.
Target group	Energy utilities, financial institutions and representatives of the final users. Can also be used by government entities to finance their own facilities.
How would it work with RRF and other EU programs	Can be combined with other financing instruments and support under programmes such as Horizon Europe, Interreg./European Regional Development fund. Often on-bill financing is less attractive than other EU financing Instruments such as grants and low-interest loans.
Example	The Ren-on-Bill project funded under Horizon2020 (2019-2022) promotes scale-up investments towards deep energy renovation of residential buildings by promoting the development and implementation of on-bill financing schemes, based on cooperation between energy utilities and financial institutions. Transferrable on-bill recovery: The RRF guidance example of component of reform supporting the renovation wave foresees that to address investment barriers for renovation, in particular the high upfront cost and the long pay-back periods, a transferrable on-bill recovery may be set up that allows customers to repay loans made for energy and resource efficiency improvements on their electricity or heating bills. To address information barriers, the necessary technical assistance will also be provided. The idea is that a customer will apply for a loan for an efficiency project and the repayments are then added to the customer's electricity or heating bills according to the energy and resource savings achieved by the renovation.



Financial instruments: On-tax financing



Instrument	On-tax financing
Description	On-tax financing for home renovation is a mechanism where financing for building improvement is linked to the taxes paid on a property. In other words, the financing lent by a private investor is repaid through property taxes and other charges related to the buildings. This requires engagement with several stakeholders in the process including local government, investors, equipment installers, and homeowners. Furthermore, legal reform of the tax legislation may be required.
Target group	Home owners investing in energy renovation (and in case of differentiated VAT buyers of efficiency equipment and/or services).
How would it work with RRF and other EU programs	On-tax financing can work in combination with RRF grants and other EU support programmes. The EuroPACE programme under Horizon 2020 is testing a way to mobilise both private capital and public funds; a simplified and digitalised home renovation process with a one-stop shop (OSS) providing all technical advice, support, training, verification and financing services.
Example	EuroPACE (Developing, piloting and standardising on-tax financing for residential energy efficiency retrofits in European cities) under Horizon 2020 has tested on-tax financing innovations in Spain (HoloDomus), and will further test options in Belgium, the Netherlands and Portugal towards the end of 2021. The scheme is inspired by the successful US PACE scheme, that was invented in California in 2008. A barrier identified is the need for changing tax legislation, which has been met with skepticism. Other tax schemes directed toward energy renovations of buildings have been used in Belgium, Denmark, Netherlands, France, Italy, and Greece.



Financial instruments: Micro-credits backed by a guarantee fund



Instrument	Micro-credits backed by a guarantee fund
Description	Microfinance, as a broad concept, describes financial services targeting micro-enterprises that lack access to finance from traditional financial institutions and individuals who wish to start a business but face difficulties in accessing finance due to a lack of collateral or credit history. Microcredit is traditionally defined in the EU as loans up to EUR 25.000 granted to existing and potential microentrepreneurs at risk of social and financial exclusion. This definition has been broadened in the ESF Plus regulation: microfinance includes guarantees, microcredit, equity and quasi-equity, coupled with accompanying business development services.
Target group	Micro-finance providers serving micro-enterprises to fund meeting low-carbon and energy efficiency aims through reductions in the greenhouse emissions of micro-enterprises.
How would it work with RRF and other EU programs	Instruments such as the Private Finance for Energy Efficiency (PF4EE), are proposed to expand to include microfinance providers serving micro-enterprises. In this context, it is important to coordinate with other instruments and institutions active in the field of energy efficiency.
Example	The EU is supporting microcredit providers mainly through the Employment and Social Innovation (EaSI) programme as well as the European Social Fund (ESF) and has so far not had a focus on energy efficiency and energy renovation.



Financial instruments: Energy Efficiency mortgage-based lending



Instrument	Energy Efficiency mortgage-based lending (EEM)
Description	Energy efficient mortgages is a loan with reduced interest that credits the energy efficiency of the building in the mortgage itself. Energy efficient mortgages finance the purchase, construction or renovation of residential and commercial buildings with the aim of improving energy performance. Requires standardized reporting on data related to energy efficient mortgage assets.
Target group	Lending institutions and supervisors targeting residential or commercial building owners – either using the instrument to purchase a new home that is already energy efficient or to purchase existing buildings that will be subjected to an energy efficiency improvement.
How would it work with RRF and other EU programs	Energy Efficient Mortgage-based lending can work in combination with RRF grants and other EU support programmes. Several initiatives have been launched to develop the instrument as exemplified below.
Example	Using grants from Horizon 2020, the European Mortgage Federation - European Covered Bond Council (EMF-ECBC) has developed the Energy Efficiency Mortgages Initiative, including EeMAP (a market-led initiative focused on the design and delivery of an "energy efficient mortgage", which is intended to incentivise and channel private capital into energy efficiency investments) and EeDaPP (a market led initiative to develop an energy efficiency data protocol via standardised reporting templates). As a part of this, the Energy Efficient Mortgage Market Implementation Plan has been launched in September 2020 (under the EeMMIP projects) to develop integrated market and blueprints to facilitate access to green mortgages.



Financial instruments: Green bonds



Instrument	Green bonds
Description	A green bond is a fixed-income financial instrument for raising capital through the debt capital market. As with any other bond, the bond issuer raises a fixed amount of capital from investors over an established period of time, repays the capital when the bond matures, and pays an agreed-upon amount of interest during that time. The issuer labels the bond "green" and use the proceeds to exclusively finance projects with an environmental benefit. The EU is to become the largest issuer of green bonds with the RRF.
Target group	Municipalities, city governments and states with a specific definition of green projects they seek to support.
How would it work with RRF and other EU programs	The target for funds for the recovery plan through green bonds has been announced to EUR 225 billion, allocated mainly to hydrogen, renovation and electric charging points. Voluntary standards have been developed under market led initiatives such as the Climate Bonds Initiative and an EU Green Bond Standard is under development. Closer links to the EU Taxonomy for sustainable activities are expected to clarify green definitions and ensure consistency between the projects financed and the EU's long-term environmental objectives.
Example	Eligible projects include, but are not limited to, renewable energy, energy efficiency, sustainable waste management, sustainable land use, biodiversity conservation, clean transportation, clean water, and various climate adaptation projects.



The related EU programmes



Energy Efficiency related programmes: RRF



Programme	The Recovery and Resilience Facility
Description	The Recovery and Resilience Facility (RRF) includes 249 bn EUR targeting climate action, subject to national recovery plans. The Guidance on Recovery and Resilience Plans identifies building renovation as a priority for national recovery plans under the European Flagship 'Renovate', which will substantially contribute to achieving the EU's climate objectives, create a large number of local jobs throughout the Member States and foster digital development through smart living and metering.
Target group	Member States - to include in national recovery plans by 30 April 2021
How would it work with RRF and other EU programs	The national recovery plans should provide information on the total estimated costs of each component of reform and investments (e.g. energy renovation of buildings) requested from RRF and a breakdown of funding from other EU programmes, from the national budget and a specification of other sources. Specific guidance is available, e.g. on designing a component of reforms and investments supporting then renovation wave.
Example	The RRF guidance example of component of reforms and investments supporting the renovation wave foresees several examples using financial instruments: <ul style="list-style-type: none"> Transferable on-bill recovery scheme Energy and resource efficiency scheme for public buildings, health and social infrastructures based on comprehensive energy performance contracts Home renovation support scheme to increase the energy and resource efficiency of residential buildings and social housing.



Energy Efficiency related programmes: Invest EU



Programme	InvestEU (new 2021-2027) and InnovFin EDP
Description	Invest EU includes 9 bn EUR targeting sustainable infrastructure. EU budgetary guarantee will be used for debt and equity financing for bankable investments and thereby de-risking economically viable projects to crowd-in private finance.
Target group	EIB Group and other implementing partners. Help mobilise, at Member State level, private financing to complement EU co-funded programmes.
How would it work with RRF and other EU programs	Can be combined with RRF, the Innovation Fund, Horizon 2020, LIFE, Connecting Europe Facility either as co-financing of the same project costs or by splitting up of project costs e.g. in an innovative part and an infrastructure part. The cumulated support must be in line with the cumulation rules of the respective support programmes.
Example	When combining a Invest EU loan with grant from Innovation Fund, no Member State is involved and the state-aid threshold limitations do not apply. InnovFin EDP will be part of InvestEU and provides loans, loan guarantees or equity-type financing typically between EUR 7,5 and EUR 75 million to innovative demonstration projects. InnovFin EDP can help innovative projects to bridge the gap from demonstration to commercialisation.



Energy Efficiency related programmes: CEF



Programme	Connecting Europe Facility (CEF)
Description	The CEF includes 5 bn EUR targeting cross-border energy infrastructure. Investment grants and risk mitigation instruments for energy transmission infrastructures of European importance to support large-scale deployment of energy from renewable sources. General maximum co-funding rate is 50% (exceptionally for works it could be 75%)
Target group	Projects of common interest and cross-border projects in trans-European energy infrastructure.
How would it work with RRF and other EU programs	The new CEF can be combined with other EU funding programmes e.g. RRF, the Innovation Fund and the Modernisation Fund provided that the contributions do not cover the same costs. If the cumulative support goes beyond 100% of total eligible cost, the support need to be reduced accordingly or on a pro rata basis.
Example	Innovation and networks executive agency, INEA promotes synergies between CEF and the most significant transport and energy parts of the Horizon 2020 programmes, either funding in progression or complementarity.



Energy Efficiency related programmes: Horizon Europe



Programme	Horizon Europe (2021-2027) – Climate, energy and mobility
Description	Horizon Europe includes 15 bn EUR in multiple programs for early technology to pre-commercial technologies (grants), research and innovation from pre-commercial to market and scale-up (grants only & blended finance). Access to funding will be through one-stop-shop funding and tenders portal. Includes 3.5 bn EU allocated under the InvestEU Fund.
Target group	Supports private companies engaged in innovative projects. Target cross sectoral projects and projects focusing on climate action, environment, resource and energy efficiency as well as smart, green and integrated transport
How would it work with RRF and other EU programs	Can be combined with RRF. Encourages synergies with other EU programmes and policies: Horizon Europe and relevant R&I-related programmes and policies in synergy, for example InvestEU, Erasmus+, EU Cohesion Policy, Digital Europe, European Structural and Investment Funds, Innovation Fund, Connecting Europe Facility, and the Recovery and Resilience Facility, to promote faster dissemination at national and regional level, and uptake of research and innovation results.
Example	Horizon Europe succeeds Horizon 2020 and will build on the successful elements thereof, enhancing synergies with other EU programmes, simplifying the model grant agreement and guidance to be beneficiaries and one-stop-shop for easy access to EU funding project implementation.



Energy Efficiency related programmes: PF4EE/LIFE



Programme	Private Finance for Energy Efficiency PF4EE/LIFE
Description	The PF4EE/LIFE facility is managed by EIB and funded by the LIFE programme. Provides long-term loans for energy efficiency, a risk sharing facility and expert support services for the financial intermediaries. The EU has committed EUR 80 million to the instrument's credit risk protection and EIB leverages this making a minimum of EUR 480 million available in long-term financing.
Target group	Financial Intermediaries for projects which support the implementation of National Energy Efficiency Action Plans or other energy efficiency programmes of EU member states. The PF4EE operates through national partner banks in Belgium, Croatia, Czech Republic, France, Greece, Italy, Latvia, Poland, Portugal and Spain. Final recipients may include natural persons, home-owner associations, enterprises, public institutions/bodies and other legal entities undertaking energy efficiency investments, e.g. ESCOs
How would it work with RRF and other EU programs	Can be combined with RRF and other EU funding programmes, but funding must not overlap. The PF4EE is often implemented with support of the PF4EE Expert Support Facility.
Example	The City of Milan in December 2020 has received a 200 million framework loan from EIB for investments to protect the environment and adapt urban spaces to COVID-19 rules. Specifically, the projects will include the upgrading of public buildings, and, in particular, energy efficiency and renewable energy measures; social infrastructure and sustainable urban mobility; solid waste management; recycling centres and open public spaces in the city.



Energy Efficiency related programmes: Innovation Fund



Programme	Innovation Fund 2021-2030
Description	The Innovation Fund is expected to provide 10 bn EUR grants for projects demonstrating or scaling up innovative technologies, based on annual calls for projects. The funding comes from the ETS scheme. The funding is provided as results based grants co-funding up to 60% of additional capital and operational cost of large projects and 60% of capital costs of small-scale projects.
Target group	Project promoters investing in innovative technologies within decarbonisation of energy intensive industries, renewable energy, energy storage, and carbon capture, use and storage.
How would it work with RRF and other EU programs	Can be combined with other programmes such as InnovFin Energy Demo projects, Connecting Europe Facility, Horizon Europe, InvestEU, Modernisation Fund, Just Transition fund, Enhanced European Innovation Council pilots, as well as public and private capital. Guidance on combination with other public support is available .
Example	First call for large-scale projects (stage one of two) closed 29 October 2020 (1 bn EUR grant available). In total 311 applications for clean tech projects were received (58 for renewable energy, 204 for energy-intensive industries, 35 for energy storage and 14 for carbon capture, use and storage). The proposed projects requested in total EUR 21.7 billion and promise to reduce around 1.2 billion ton of CO2 during their operating period within the Innovation Fund. First call for small-scale projects (single stage) closes 10 March 2021 (100 million EUR grant available).



Energy Efficiency related programmes: Modernisation Fund



Programme	Modernisation Fund 2021-2030
Description	The Modernisation Fund leaves the beneficiary Member States the freedom to decide on the form of support: MS can use grants, premium, guarantee instruments, loans or capital injections. The funding comes from the ETS scheme and may amount to some €14 billion in 2021-30. The fund will support investments in Generation and use of energy from renewable sources, Energy efficiency, Energy storage, Modernisation of energy networks, including district heating, pipelines and grids, as well as transition in carbon-dependent regions (redeployment, re-skilling and upskilling of workers, education, job-seeking initiatives and start-ups).
Target group	Selected Member States: Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia.
How would it work with RRF and other EU programs	Member States select and submit the proposed investments to the EIB, the Investment Committee and the Commission. Submissions can be made on a rolling basis, but the Investment Committee will meet twice a year, as of 2021. Co-financing from private and public entities is possible (no double funding). Interactions with other funding instruments such as Connecting Europe Facility, Just Transition Fund, InvestEU, Cohesion Fund, European Regional Development Fund is possible.
Example	In Poland, the modernisation fund will support the National Fund for implementation of priority programmes of the new energy policy 2040. E.g. Green Investment plan, including energy renovation of residential housing, renewable energy promotion. Vast number of financing instruments are proposed: Grants, preferential loans, equity, redemptions/write-offs, partial repayments of bank loans, etc.



Energy Efficiency related programmes: Just Transition Fund (JTF)



Programme	Just Transition fund
Description	The Just Transition Mechanism is based on three pillars: grants from the Just Transition Fund (JTF), a dedicated InvestEU scheme and a new EIB loan facility. The JTF is funded by 10 bn EUR from EU budget appropriations and 30 bn EUR from European Recovery Instrument. In order to access funding from the JTF, EU countries will have to match each euro received with 1.5 to 3 euro from their resources of the ERDF and the ESF+.
Target group	Member States receiving resources of European Regional Development Fund or European Social Fund Plus (the regions most affected by the transition to a carbon-neutral European Union in each Member State).
How would it work with RRF and other EU programs	In the Territorial Just Transition Plans, EU countries will identify the territories and sectors eligible for funding under the JTF. Approval of Just Transition Plans opens for additional funding through dedicated funds under Invest EU and the EIB public sector loan facility e.g. supporting energy and transport infrastructure. Can be combined with funds from Horizon Europe, Funding for Climate Action, LIFE programme, Innovation Fund, Modernisation Fund and Connecting Europe Facility.
Example	The public loan facility is expected to fund public investment to the benefit of areas such as energy and transport infrastructure, district heating networks, public transport, energy efficiency measures, social infrastructure and other projects that can directly benefit the communities in the affected regions and reduce the socio-economic costs of the transition.



Energy Efficiency related programmes: One-stop shops



Programme	One-stop shops
Description	EU and EIB will support setting up standardised one-stop shops to deliver tailored advice and financing solutions. One-stop shops are independent, government-led, or industry-linked advisors that offer services that cover the whole or at least most of the renovation value chain. One-stop shops are local and increase the rate of building refurbishment by informing, motivating, and guiding building owners to implement energy efficiency investments.
Target group	The standardised one-stop shops will deliver tailored advice and financing solutions designed to accompany homeowners or SMEs throughout the preparation and implementation of their projects. Local actors can build on this platform to create competence centres for various types of advice on sustainable renovation
How would it work with RRF and other EU programs	Additional source of capacity support will be offered by the proposed new Technical Support Instrument of the Recovery Plan, the EU City Facility and the Project Development Assistance Facility under LIFE, and the administrative capacity building and technical assistance under the post-2020 cohesion policy funds.
Example	The One-stop shops proposed are inspired by the ELENA Facility of EIB. ELENA provides technical assistance for energy efficiency and renewable energy investments targeting buildings and innovative urban transport.





The end



Appendix C Analysis of RRP's

Overview of RRP's funding on EE per Member States

Table 7-1 Overview of RRP's funding on EE per Member State

Country ⁵⁸	Funding	EE focus
> Austria	> €159 million	> Supporting private households to replace oil and gas heating with more sustainable heating devices.
> Belgium	> €1 billion	> Energy-efficient renovation of residential and public buildings: financing renovation wave across regions to increase the energy efficiency of public buildings, social housing and residential buildings.
> Bulgaria⁵⁹	> €926 million	> Funding for energy efficiency measures for the renewal of the national building stock of residential and commercial real estate.
> Croatia	> €789 million	> Energy efficiency and post-earthquake reconstruction of buildings: renovating at least 225,000 square metres of residential buildings and 593,000 square metres of public buildings.
> Cyprus	> €89 million	> Energy efficiency and renewables: financing various support schemes to implement energy efficiency measures and renewable energy investments and to combat energy poverty.
> Czechia	> €1.6 billion	> Energy efficiency: financing large-scale renovation programmes to increase the energy efficiency of residential and public buildings, childcare and long-term care facilities.
> Denmark	> €80 million	> SME support measures for energy renovation: supporting SMEs to grow and create local employment with projects such as energy renovation of buildings or boosting energy efficiency for industry.
> Estonia	> €92 million	> Increase the energy efficiency of buildings and decarbonising the energy sector.
> Finland	> €110 million	> Investment measures included focus on subsidising the replacement of oil-fuelled heating boilers by low-carbon energy-efficient heating in private and public buildings
> France	> €5.8 billion	> Renovation of buildings: financing a large-scale renovation programme to increase the energy efficiency of buildings.
> Germany	> €2.5 billion	> Energy efficiency in residential buildings: financing a large-scale renovation programme to increase the energy efficiency of residential buildings.
> Greece	> €1.3 billion	> Energy efficiency in residential buildings: renovating more than 100,000 residences to increase energy efficiency, including for low-income households.

⁵⁸ Luxembourg's Recovery and Resilience Plan does not feature energy renovation of buildings prominently in any investment measures.

⁵⁹ [Национален план за възстановяване и устойчивост \(nextgeneration.bg\)](https://nextgeneration.bg)

Country ⁵⁸	Funding	EE focus
> Hungary⁶⁰	> €750 million	> The amount is for the green transitions as a whole. Energy efficiency renovations in both private- and public buildings.
> Ireland	> €155 million	> Energy efficiency in residential and public buildings, and businesses: assisting households, businesses and the public sector to implement energy efficiency investments and green technology solutions to reduce carbon emissions.
> Italy	> €12.1 billion	> Energy efficiency in residential buildings: financing large-scale renovation of residential buildings to make them more energy efficient.
> Latvia	> €248 million	Energy efficiency in private and public buildings: financing a large-scale renovation initiative to increase the energy efficiency of residential buildings, public buildings and businesses.
> Lithuania	> €218 million	Accelerating renovation of buildings: supporting the production of modular elements for renovations from organic materials and providing financial support to citizens for actual renovations.
> Malta	> €78 million	Investment in the renovation and greening of public and private sector buildings, including deep retrofitting through energy and resource efficiency measures
> Netherlands		[No public information available at the time of submitting this report].
> Poland⁶¹	> €5.2 billion	> Energy efficiency within the whole economy.
> Portugal	> €300 million	Energy efficiency in residential buildings: financing a large-scale renovation programme to increase the energy efficiency of residential buildings
> Romania⁶²	€2.2 billion / €2.1 billion	Renovating fund /Local fund for green transition as a whole.
> Slovakia	> €528 million > €368 million	Energy efficiency in family houses: financing a large-scale renovation wave to improve energy and green performance of at least 30,000 residential units. Decarbonisation of industry: promoting energy efficiency and investing in innovative decarbonisation technologies in industry.
> Slovenia	> €230 million	Energy efficiency and seismic renovation of buildings: financing large-scale renovation programmes to increase the energy efficiency of public buildings, including schools

⁶⁰ [Helyreállítási és Ellenállóképességi Eszköz \(RRF\) | Széchenyi Terv Plusz \(gov.hu\)](https://www.gov.hu)

⁶¹ [KPO wysłany do Komisji Europejskiej - Krajowy Plan Odbudowy - Portal Gov.pl \(www.gov.pl\)](https://www.gov.pl)

⁶² [PLANUL NATIONAL DE REDRESARE ȘI REZILIENTĂ \(PNRR\) \(gov.ro\)](https://www.gov.ro)

Country ⁵⁸	Funding	EE focus
> Spain	> €3.4 billion	Energy efficiency residential renovations: supporting more than half a million energy efficiency renovations in residential buildings to achieve, on average a primary energy demand reduction of at least 30%
> Sweden⁶³	> €400 million	Energy efficiency in residential renovations.

Source: Factsheets on Recovery and Resilience Plans for different Member States
https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en

⁶³ [Sveriges återhämtningsplan - Regeringen.se](https://www.regeringen.se/491315/16112021/Sveriges-aterhamtningsplan)

Overview of Commission's assessments of RRP per Member State

Table 7-2 Overview of Commission's assessments of RRP per Member State

	Energy renovation of buildings	Investment gap ⁶⁴
Austria	Investment in renovation of buildings, energy-efficiency and renewable energy will provide a further significant contribution to the climate target. They promote the exchange of oil and gas heating systems in 31 800 dwellings by renewable technology such as biomass, heat pumps and efficient district heating (EUR 158.92 million , 1.A.2). Investment in renewable heating systems (Exchange of oil and gas heating systems, 1.A.2) will save at least 184 000t CO2 equivalents annually	Estonia's Long Term Renovation Strategy estimates that the need for annual reconstruction funding will also rise almost 5 times, from less than EUR 200 million per year to EUR 900 million per year. Estonia has set an objective to renovate 3% per year of the floor area of public buildings, altogether 170 000 m2 by 2030 and to increase the energy efficiency of residential buildings and offices
Belgium	Energy-efficient renovation of residential and public buildings: financing renovation wave across regions to increase the energy efficiency of public buildings, social housing and residential buildings. The total funding: €1 billion .	To reach the current 2030 objective, the renovation rates in the public and private building stock should increase from the current 0.5% per year towards around 3% per annum. The renovation investments and reforms included in the plan are expected to contribute to this objective to some extent, although the estimated impact is not provided in the plan.
Bulgaria	NA	No public information available at this time.
Croatia	EUR 625 million for energy efficiency renovation of buildings. In addition, important investments contributing to the climate target include the construction of energy-efficient buildings in various sectors The investments will achieve on average at least an increase of 30% primary energy savings compared to the pre-renovation state. The building renovation initiative will directly contribute to the Renovation Wave. In terms of enabling reforms supporting the reduction of energy consumptions and greenhouse gas emissions in buildings, the plan includes a pilot project for the establishment of an energy management system that should contribute to the development of a new financing model for the renovation of the public building stock.	The energy efficiency measures in building renovation and industrial processes will support this contribution, although the total expected energy savings from these measures are not quantified at this point. However, further investments in building renovations and energy efficiency would be needed in the next years to deliver on the objectives set out in the 2030 National Energy and Climate Plan and the Long-Term Renovation Strategy. In particular, additional efforts will be needed in order to leverage additional private capital for building renovations and energy efficiency measures in industrial processes, and to uphold the Energy Efficiency First principle
Cyprus	EUR 269 million for Climate neutrality, energy efficiency and renewable energy. The plan includes investments related to the energy upgrade of public buildings and other public infrastructure.	The Cypriot recovery and resilience plan includes measures which aim at making a substantial contribution to the achievement of the national targets in energy efficiency and renewable energy for 2030 in line with the NECP.

⁶⁴ As elaborated in the assessments performed by the European Commissions on the national RRP.

Energy renovation of buildings		Investment gap ⁶⁴
Czechia	With estimated costs of EUR 332 million , renovation of residential buildings represents the biggest contribution of one single measure to the climate target. This is a broad energy-efficient building renovation programme which is expected to deliver energy savings of at least 30%, renovations to very high efficiency classes and the abolition of support for lower classes of energy performance	Additional public funding may be needed to mobilise the total volume of investments necessary to fulfil the outstanding energy savings required to achieve the objective set in the NECP and the long-term renovation strategy for 2030. The funds proposed in the recovery plan for energy efficiency in buildings will not be enough to meet the targets set in the Czech Building Renovation Strategy. It is necessary to increase the target of this component to 70,000 buildings and the allocation to buildings' energy efficiency to EUR 771 million (from EUR 385 million).
Denmark	Denmark seeks to prioritise additional initiatives based on the recommendations from the Danish climate partnerships to generate social, environmental and economic benefits by stimulating job-creation and raising the growth potential, while contributing to the green transition by reducing GHG emissions by 0.1 Mt in 2030. Proposed initiatives target the green energy renovation of buildings with poor energy performance and the replacement of oil burners and gas furnaces with electric heat pumps and district heating in order to reduce energy consumption and GHG emissions.	NA
Estonia	€92 million: facilitating the uptake of renewable energy and reducing dependency on oil shale in electricity production; investments into grid and storage capacity for renewable energy; measures to facilitate and support energy-efficient renovations of 2,680 dwellings.	NA
Finland	€110 million: Reducing the climate and environmental impacts of the building stock is expected to contribute to reducing greenhouse gas emissions from construction and heating of buildings. Investment measures included focus on subsidising the replacement of oil-fuelled heating boilers by low-carbon energy-efficient heating in private and public buildings.	NA
France	Measures cover all types of buildings, with a prominent amount for public buildings (for a total recovery and resilience facility funding of EUR 3.8 billion), but also significant actions for the renovation of the private building stock, of social housing, and to increase the energy efficiency of SMEs. These actions generally follow up on actions already undertaken by France through previous policy instruments, thus accompanying an increase in scope and scale of the renovation effort	France is falling short of its energy efficiency targets for 2020 and faces the major challenges of decarbonising and increasing the energy performance of the building sector. According to its National Energy and Climate Plan, France will need to invest annually an additional EUR 15 to 25 billion until 2030 into the renovation of buildings.

	Energy renovation of buildings	Investment gap ⁶⁴
Germany	Funding of EUR 2.5 billion for building renovation: federal funding for energy-efficient buildings (1.3.3) represents the biggest contribution of the plan to the climate target. This is a broad energy-efficient building renovation programme which is expected to deliver energy savings of at least 30% during its implementation under the RRF. It is complemented by municipal living laboratories for the energy transition	NA
Greece	Estimated value: EUR 2.71 billion - covers significant investments in enhancing energy efficiency in Greece's building stock, including a flagship investment in "Energy renovation of residential buildings" that is estimated at EUR 1.253 billion. The measures related to renovation and enhancing energy efficiency will result in average primary energy savings or greenhouse gas reduction of 30%.	The plan proposes significant support and additional funding for buildings renovation. At the same time, substantial amounts of additional public funding will still be needed to mobilise the total volume of investments necessary to deliver on the remaining of the energy savings required to achieve the objective set in the NECP and the long-term renovation strategy for 2030.
Hungary	€750 million⁶⁵ The scheme for residential heating and electricity supply focuses on renewables and provides households with the option to install better insulated windows, but the full insulation of houses is not supported.	NA
Ireland	€155 million The recovery and resilience plan includes measures aimed at reducing greenhouse gas emissions in the residential sector. The loan retrofit scheme fully meets the purposes of the 2019 climate action plan whereby Ireland commits to reducing greenhouse gas emissions in the residential sector from 6 million tonnes CO2 equivalent in 2017 to between 3 and 4 million tonnes CO2 equivalent in 2030 and to setting a trajectory towards net-zero greenhouse gas emissions by year 2050.	Ireland has not yet comprehensively evaluated private and public investment needs related to the 2030 targets and the transition towards a climate-neutral economy. Such an assessment is critical in order to inform the design of policies and measures to achieve long-term climate mitigation objectives. At the same time, Ireland's NECP and climate action plan provide a strong basis for the design of climate and energy-related aspects of its plan, including in energy efficiency.

⁶⁵ [Helyreállítási és Ellenállóképességi Eszköz \(RRF\) | Széchenyi Terv Plusz \(gov.hu\)](#)

	Energy renovation of buildings	Investment gap ⁶⁴
Italy	<p>The plan envisages EUR 14 billion to support the Superbonus 110% housing tax deduction active since 1 July 2020 and will remain in force until 30 June 2022 (for social housing until 31 December 2022). Investments on tax deductions for building renovation measure in the residential sector in the plan represent a significant share around 26% - of the public budget support envisaged in the National Energy and Climate Plan 2021. The objective of the Superbonus 110% to achieve 190 ktoe/year of energy savings from the residential sector will contribute to around 6% of the total 2030 target for the energy savings contribution from the tax deduction measures in the residential sector estimated in the Italian NECP</p> <p>The Plan envisages also to update and strengthen the National Fund for Energy Efficiency and to accelerate the implementation phase of projects financed by the PREPAC programme. Furthermore, the Plan envisages EUR 6 billion to improve energy efficiency of municipalities</p>	<p>Despite the significant investment, substantial amounts of additional public funding will be needed to mobilise the total volume of investments necessary to deliver on the objective of the national energy and climate plan.</p>
Latvia	<p>With a total of EUR 311 million Energy efficiency intervention is the largest climate contribution of the recovery and resilience plan. This subcomponent notably includes energy efficiency measures for multi-apartment buildings (1.2.1.1), businesses (1.2.1.2), municipal buildings and infrastructure (1.2.1.3) as well as public sector buildings, including historical buildings (1.2.1.4) with business being the largest recipient of funds. These investment measures benefit from a 100% climate tag as they will respect the energy efficiency criteria of at least 30% primary energy savings and this level is guaranteed in their respective milestones and target.</p>	<p>Current renovation plans fall significantly short of the efforts needed to achieve the 2030 national contribution. Speeding up renovation requires greater availability of low cost, long-term financing and private capital to reduce the public cost of renovating private buildings.</p>
Lithuania	<p>Supporting the production of modular elements for renovations from organic materials and providing financial support to citizens for actual renovations.</p> <p>Primary energy savings of 215 GWh are expected to be attained by 2026 which would translate into the reduction of GHG emissions by 21.500 tCO₂eq. The total funding: €218 million.</p>	<p>NA</p>
Luxembourg	<p>Energy renovation of buildings, and the 'Renovate' flagship, do not feature prominently in any investment measure. It is only mentioned, as a secondary objective, in the 'Housing Pact 2.0' reform, which aims to support municipalities' efforts to make more affordable housing available, either by building new housing or renovating the existing building stock. Increasing renovation efforts will remain necessary.</p>	<p>Luxembourg needs to invest in particular in energy efficient construction (and creating links to address the persistent undersupply of housing) and the renovation of residential buildings</p>

	Energy renovation of buildings	Investment gap ⁶⁴
Malta	<p>Funding of EUR 78 million</p> <p>Investment in the renovation and greening of public and private sector buildings, including deep retrofitting through energy and resource efficiency measures. b. Investment in the renovation and deep retrofitting of public hospitals. c. Investment in the renovation, deep retrofitting and renewable energy in public schools. d. Investment in the construction of pilot near-carbon-neutral school to serve as a model for the future and provide a future-proof learning experience to students. e. Renewable energy investments in footpaths, roads, and public spaces</p>	<p>Additional public funding will be needed to deliver on the energy saving objectives of the national energy and climate plan 2030, notably for energy renovations in private households.</p>
Netherlands	Not public as of yet	NA
Poland	Invests around EUR 5.2 million to improving the energy efficiency in the economy. ⁶⁶	NA
Portugal	Invests around EUR 601 million on renovations of existing buildings, the construction of new energy-efficient buildings, or more energy efficient industrial processes.	The national Long-term Renovation Strategy quantifies that the investment needed for the full transformation of the Portuguese building stock is EUR 143 billion until 2050 (EUR 4.95 billion per year).
Romania	<p>Renovation fund of EUR 2,2 billion⁶⁷</p> <p>Energy fund of EUR 1,6 billion</p> <p>Improving energy efficiency by 32.5% by 2030 will also be a challenge. In the present in the residential sector less than 5% of the building stock were thermally rehabilitated and energy efficient, despite the fact that such work would lead, on average, to energy savings of over 50%</p>	NA
Slovakia	<p>With funding of EUR 741 million. According to the plan, reaching the EU climate objectives will require that energy consumption of buildings in Slovakia is reduced by 40% by 2050. The objective is to renovate at least 30 000 single family houses as well as public historical and listed buildings in line with the Long-term renovation Strategy for Buildings. Renovation investment schemes will mobilise at least 30% primary energy savings as well as implementation of climate adaptation and other measures.</p>	Slovakia's National Energy and Climate Plan (NECP), which estimates total investment needs to reach EUR 2.2 billion per year for energy efficiency measures.

⁶⁶ [KPO wysłany do Komisji Europejskiej - Krajowy Plan Odbudowy - Portal Gov.pl \(www.gov.pl\)](https://www.gov.pl)

⁶⁷ [PLANUL NATIONAL DE REDRESARE ȘI REZILIENTĂ \(PNRR\) \(gov.ro\)](https://gov.ro)

	Energy renovation of buildings	Investment gap ⁶⁴
Slovenia	<p>The plan provides founding of €230 million</p> <p>On the energy efficiency of buildings, the plan covers a broad range of reforms and investments, covering both construction and renovation. Component C1K1 "Renewable energy and energy efficiency" includes a reform measure to promote the energy-efficiency potential of the construction sector by adopting a building-information modelling (BIM) strategy. This strategy promotes the use of building information models both in the building-construction and building-management phases. As foreseen in C1K2 "Sustainable renovation of buildings", the implementation of the recently adopted longterm renovation strategy (LTRS) will make it possible to identify: (i) cost-effective renovation approaches, policies and measures to promote cost-effective deep renovations of buildings;</p>	NA
Spain	<p>Support to more than half a million energy efficiency renovations in residential buildings to achieve, on average a primary energy demand reduction of at least 30%.</p> <p>In the plan, EUR 7,8 billion will be devoted to the renovation of residential dwellings, public buildings and urban rehabilitation in Component 2 (Renovation), for public buildings in Component 11 (Public Administration), and for sports facilities in Component 26 (Sports). These measures are in line and support the ambitions of the Spanish Long Term Building Renovation Strategy.</p>	<p>Additional funding will be needed to deliver on the energy savings objectives of the NECP, in particular by ensuring a relatively higher leverage factor for private investments.</p> <p>The NECP plans to leverage private funds equivalent to three times the volume of public funds, which is higher than what the component is likely to achieve. In this context, a regulatory reform is foreseen in the component to foster private investments, notably by facilitating communities of owners to borrow and by providing Instituto de Crédito Oficial (ICO) guarantees to banks for lending for this purpose.</p>
Sweden	<p>The total cost for 2021–2023 amounts to SEK 4.05 billion from RRF eq to 0,4 billion EUR.</p> <p>The estimate of the target is based on the assumption of an annual renovation rate of 3 percent. As the regulation has not yet been decided, it is currently in place.</p> <p>At the same time, the size of the support in relation to the size of the projects depends on which measures which can be implemented, ie. on major energy efficiency measures, which contribute to better energy performance, the funds are sufficient for a smaller area. Given that the support will not be available until the second part of 2021 is assessed measures and effects to be taken and arise from.o.m. 2022 and onwards. Interim target: The Support Ordinance will enter into force in 2021. Goal: By 2023, support will have been granted for projects involving a total of 2,850,000 square meters Attempt, which defines the floor area of the building as the energy performance should based on.</p>	NA

Source: Commission's Assessments of Recovery and Resilience Plans for different Member States https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en

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