



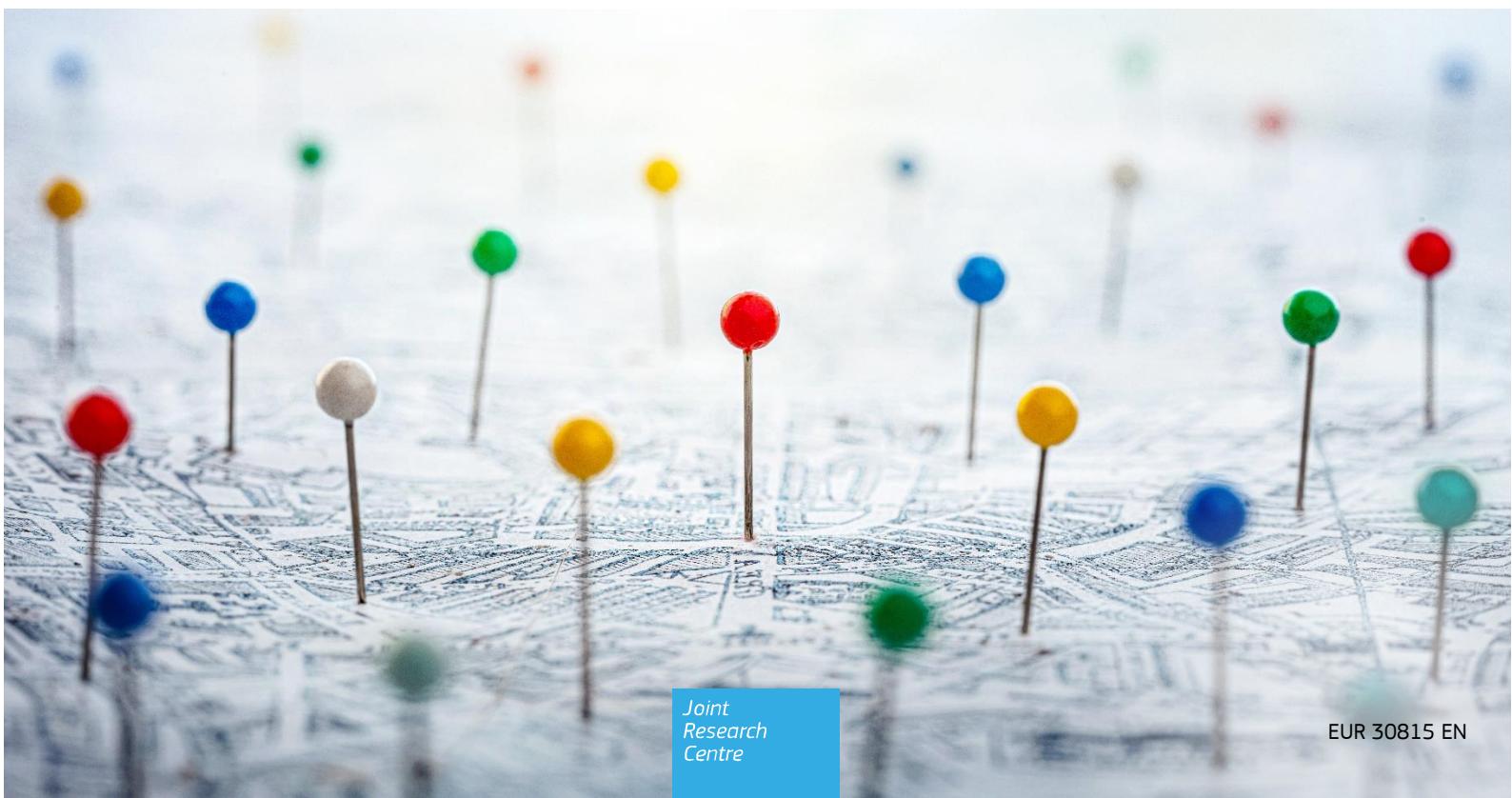
JRC SCIENCE FOR POLICY REPORT

Financing energy renovations at local and regional levels

*European status
and good practices*

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Valentini, O; Bertoldi, P

2021



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EU Science Hub

<https://ec.europa.eu/jrc>

JRC123755

EUR 30815 EN

PDF

ISBN 978-92-76-41141-3

ISSN 1831-9424

doi:10.2760/52526

Luxembourg: Publications Office of the European Union, 2021

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How to cite this report: Economou, M., Della Valle, N., Melica, G., Valentini, O., Bertoldi, P. *Financing energy renovations at local and regional levels - European status and good practices*, EUR 30815 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-41141-3, doi:10.2760/52526, JRC123755.

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Abstract

It is widely recognised that much of the energy we use in buildings is largely wasted due to old construction practices, many of which preceded the adoption of energy performance standards. With over 80% of today's buildings expected to be still in use in Europe by 2050, the building sector must be at the centre of decarbonisation efforts in the EU. Energy upgrades through comprehensive renovations can drive much needed energy savings in the sector, boost economic growth, generate new jobs, support local businesses and strengthen industrial competitiveness. Renovations can also play a crucial role in the European recovery of the COVID-19 pandemic due to the labour-intensive nature of the building sector and large domination of local businesses. In light of the close link of regional and local authorities with European citizens, this report assesses the role of municipalities and regions in stimulating energy upgrades in residential, commercial and public buildings today. Based on data collected through a survey conducted with the help over 80 experts across European regions and municipalities, the report assesses the main financial and fiscal instruments and identifies their main characteristics. Good practices are discussed based on the selection of various design, implementation and impact criteria, ranging from funding sustainability to scalability and success at addressing hard-to-reach groups.

Acknowledgements

We would like to express our gratitude to all experts listed below who kindly agreed to participate in our survey. Their valuable contributions have been critical for the successful completion of the project. We are grateful to Georgia Kakoulaki for generating the map included in the report.

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EE	Tartu region	Marek Muiste	Tartu Region Energy Agency TREA
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Executive summary

Policy context

Energy renovation of buildings is highlighted in the European Green Deal as a key initiative to drive energy efficiency improvements, boost economic growth, generate new jobs, support local businesses and strengthen industrial competitiveness. The European Commission published its Renovation Wave Strategy in October 2020 with the aim to drastically improve the energy performance of buildings across Europe. To pursue the Green Deal ambition and to kick-start the post-Covid 19 recovery, the Commission has set out the goal of doubling the renovation rate in its dedicated recovery plan. This would require the uptake of financing and the mobilisation of a multiple actors at all governance levels, from municipalities to national and international players.

Key conclusions

The promotion of energy upgrades in buildings is found to largely depend on the governance structure in each country. According to our findings, some EU Member States rely exclusively on the use of financial instruments at national level¹, while others offer multi-governance level support at national, regional and local levels. In particular, 13 out of 27 countries were found to have regional financial schemes promoting energy renovations in residential, commercial and public buildings and 14 at local level. Around two thirds of all studied schemes had some form of energy efficiency criteria attached to their design features. The most ambitious schemes promote renovations at nearly zero energy or positive energy levels. Several local financial schemes are combined with regional and/or national ones, thus enabling the delivery of higher savings and encouraging deeper renovations. Despite this, budgetary resources are often limited which mean that the overall impact is often lower than those of national schemes. Notwithstanding this limitation, regions and local authorities typically have an in-depth knowledge of their building stock and their occupants, including possible vulnerability or energy poverty issues. This highlights even further the need to utilise available EU-wide or other international funds to support regional and local authorities in promoting energy efficiency with their citizens. The impact and cost-effectiveness of financial schemes can be studied in more detail in the future under the condition that more comparable data are made available through the implementation of harmonised definitions and methodological approaches.

Main findings

Information on about 170 schemes was collected in this study, with the largest number of schemes located in Italy, followed by Germany, France, Spain and Portugal. Public support at local and regional levels is predominantly offered in the form of grants and subsidies, with a total of 90 schemes offered in the form of grants/subsidies, followed by loans or mixed schemes combining loans with grants and/or subsidies (35 schemes) and tax incentives (4 schemes). Just less than a half of all schemes (68 schemes or 45% of total) were designed to support energy upgrades in the residential sector alone and just over a quarter of them (40 schemes or 26% of total) in the public sector.

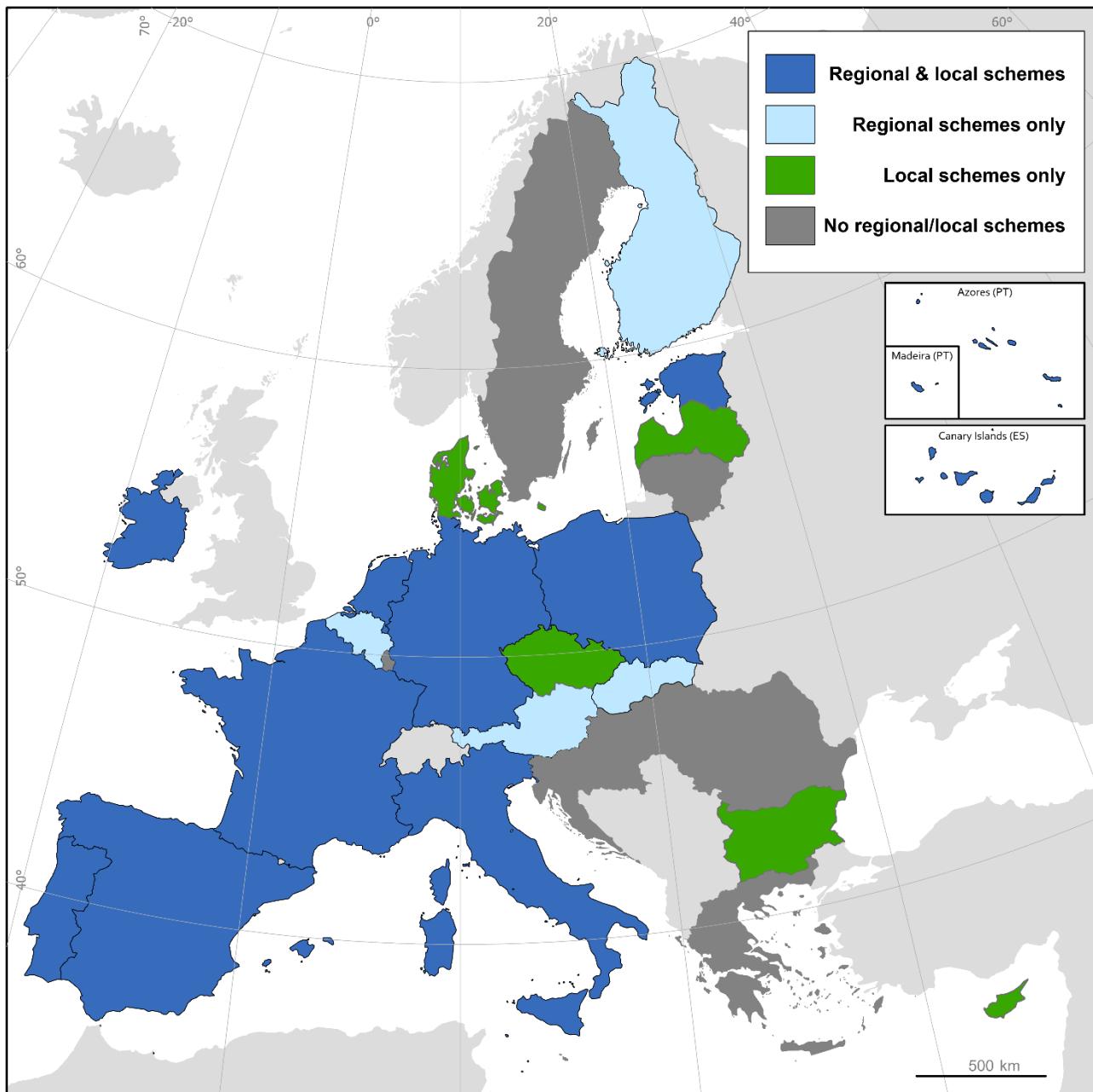
Our analysis has shown that the EU cohesion policy makes a key contribution to energy efficiency through available financial allocations from the European Regional Development Fund (ERDF) and the Cohesion Fund (CF). In total, nearly EUR 25 billion have been allocated over the period 2014-2020 on energy efficiency investments in buildings for categories 013, 014, 068 and 070², with 69% stemming from EU Cohesion Policy funds³. Nearly half of the total funds associated with the aforementioned categories (EUR 12.7 billion) have been allocated to investments in the public sector alone. The largest investments were undertaken in Poland, Czech Republic and Hungary. Of all regional and local instruments covered in our survey, 51% of them were reported to have used EU funds.

¹ This was found to be the case for Croatia, Greece, Hungary, Luxembourg, Lithuania, Malta, Romania, Slovenia and Sweden.

² Categories 013, 014, 068 and 070 correspond to public sector, residential buildings, SMEs and large enterprises, respectively.

³ Based on data derived from <https://cohesiondata.ec.europa.eu/>)

Figure 1. Geographical distribution of regional and local financial schemes on energy efficiency identified in our survey



Source: JRC

Several schemes are singled out based on a selection of various design, implementation and impact criteria. A few schemes support ambitious energy efficiency upgrades by setting strict energy performance requirements such as a maximum annual energy demand of 90 kWh/m² or the achievement of energy class A after renovation. Others support energy upgrades in hard-to-reach buildings by providing support to vulnerable groups, low-income households or beneficiaries such as social housing associations, condominium multi-owners, tenants, and SMEs. Several instruments offer long-term continuity based on lasting public commitment or are based on more sustainable funding structures e.g. through the use of revolving funds, diversified funding sources and earmarked funds from taxation of fossil fuel use. Technical assistance, third-party services, involvement of ESCOs, one-stop shops or the possibility of combination with other schemes offer scalability potential. Finally, our analysis has also identified the impact of some schemes in terms of energy savings, reduction of GHG emissions as well as investments. Some of these schemes were reported to

have an overall budget of more than EUR 100 million and were associated with energy savings of 100 GWh per year.

With a level of governance closest to citizens, local authorities can better prioritise interventions, targeting the most inefficient buildings and/or those occupied by vulnerable people. Based on the analysis of 40 local schemes, it can be seen that local authorities, generally lacking own resources for the development and implementation of financing schemes, can often count on European structural or research funds to do so. Financial schemes at local level can complement regional and/or national ones, for example providing extra funds for interventions delivering higher savings compared to what regional and/or national schemes require to achieve. Local authorities can also contribute to the successful implementation of national/regional/local financing schemes, by working in close cooperation with stakeholders: they can work with banks to develop suitable products, build capacity of professionals of the construction sector and provide energy advice to homeowners. Local financing schemes prove to be particularly effective (e.g. in terms of number of successful applications) when they are accompanied by tailored communication campaigns, aimed at listening to citizens' preferences and concerns and accompanying them in the process.

The Covenant of Mayors (CoM) initiative, which was launched to support municipalities committed to meeting the EU Climate and Energy goals, also offers insights on key financial actions adopted by European municipalities in order to meet their 2020 and 2030 targets.

Related and future JRC work

This report is part of a series of JRC reports examining financial-related issues regarding energy renovations in buildings in Europe. In 2019, the JRC published a report focusing on how EU governments and private actors promoted energy efficiency improvements in existing buildings through nationally-implemented financial schemes and other supporting mechanisms (Economidou, Todeschi, & Bertoldi, 2019). Previous reports focused on main financial practices and ways forward for stimulating energy renovations at national level (Economidou & Bertoldi, 2014) and general energy efficiency financial mechanisms (Rezessy & Bertoldi, 2010). Relevant issues such as one-stop shops (Boza-Kiss & Bertoldi, 2018), the use of energy performance contracting and ESCOs (Bertoldi, Boza-Kiss, & Toleikyte, 2019; Boza-Kiss, Zangheri, Bertoldi, & Economidou, 2017) and other supporting policies (Castellazzi, Bertoldi, & Economidou, 2017; Castellazzi, Zangheri, & Paci, 2016; Castellazzi et al., 2019; Economidou & Serrenho, 2019) have also been investigated thoroughly through various reports published in recent years.

Quick guide

Financial schemes or instruments for energy renovations in buildings may take the form of non-repayable subsidies, debt financing, equity financing, ranging from well-established and traditional mechanisms such as grants, subsidies and loans to emerging and new models (Bertoldi et al., 2021). Energy renovations or upgrades in the context of this study are defined as the combination of any intervention measures on the envelope of a building and its technical systems resulting into significant energy efficiency improvements, often complemented with renewable energy technology installations. To collect data on available schemes within the scope of the study, a questionnaire was distributed to regional and local experts in all EU27 countries. The report assesses the main available instruments, identifies their key characteristics and discusses good practices based on the selection of various design, implementation and impact criteria. Due to data-related limitations, the impact of the studied schemes and hence in-depth examination of good practices is currently not possible.

1 Introduction

It is widely recognised that buildings, representing the largest energy consumer in Europe, must be at the centre of EU efforts to decarbonise its energy system (EC, 2016, 2018). In particular, energy renovation of buildings has been singled out in the European Green Deal as a key initiative to drive energy efficiency improvements, boost economic growth, generate new jobs, support local businesses and strengthen industrial competitiveness (EC, 2019). Under the first priority of the European Commission's work programme published on 29 January 2020, the Commission announced its intention to launch a 'renovation wave' initiative (EC, 2020a). With the vast majority of buildings built before 2010 in need of partial or deep renovation to meet long-term climate neutral targets, the renovation wave initiative represents a great challenge and opportunity (Economidou et al., 2011; Sebi, Nadel, Schlomann, & Steinbach, 2019). More recently, building renovation has also been highlighted as a prerequisite to the post-COVID 19 economic recovery, and was specifically referred to in the recovery plan for the next generation (EC, 2020b).

In accordance with the European Green Deal, the renovation wave initiative should be adopted in the third quarter of 2020. It is expected to be built on measures agreed under the Clean energy for all Europeans package, notably the requirement for each EU country to publish a long-term building renovation strategy (LTRS), several aspects of the amending Directive on the Energy Performance of Buildings ((EU) 2018/844), and building-related aspects of each Member State's national energy and climate plans (NECP). Previous studies have identified various financial and fiscal mechanisms for energy renovations in buildings in Europe in the form of non-repayable rewards, debt financing, equity financing or a combination of these options (Brown, Sorrell, & Kivimaa, 2019; Economidou & Bertoldi, 2014; Maio, Zinetti, & Janssen, 2012). These can range from well-established and traditional mechanisms such as grants, subsidies and loans to emerging and new models not yet well tested in the European market such as crowdfunding and on-bill finance models. More recently, Bertoldi, Boza-kiss, Economidou, Palermo, & Todeschi (2021) reviewed current financing practices for energy renovations including innovative instruments with a special focus on their applicability to residential buildings.

While many of the aforementioned studies focus on many of the ongoing national efforts in stimulating investments in building renovations, many of the current actions take place at regional and local levels. Indeed, the Paris agreement recognises the key role of regional and local authorities in delivering climate and energy targets. Offering a closer link to citizens, regions and local authorities can actively nurture behavioural change and ensure participation by citizens and local businesses. In light of this crucial dimension that regions and local authorities can bring, initiatives such as the Covenant of Mayors for Climate and Energy continue to have the strong support by the European Commission. The Covenant of Mayors initiative has highlighted several successful policy actions in promoting energy efficiency investments, including actions of financial and fiscal nature (Palermo, Bertoldi, Apostolou, Kona, & Rivas, 2020). Beyond this, the European Commission actively promotes energy efficiency through its Cohesion and ERDF funds at regional level.

This report aims to provide the current state of play in relation to energy renovation programmes in residential, commercial and public buildings in Europe. Building up from last year's report (Economidou et al., 2019), the current research extends its scope to regional and local efforts with the aim to provide a far-reaching overview of at all levels. Whilst the results presented here are non-exhaustive, this study represents the first of its kind to the best of the authors' knowledge in that it covers all main governance levels: national, regional and local. To support this ambitious goal, a questionnaire was specifically designed and distributed to regional and local experts in all EU27 countries⁴ and complemented by review of national, regional and local reports.

The structure of the report is as follows. Chapter 2 describes the methodology deployed in this report and the approach used to collect data at national, regional and local levels. An overview of all main national schemes identified in EU Member States is presented in Chapter 3, where a summary of the 2019 findings is given as well as new updates derived from the latest efforts described in the National Energy and Climate Plans submitted by Member States. Chapter 4 focuses on actions and programmes at regional level, first providing a summary of the support through ERDF and Cohesion Funds on this area, followed by a dive into all regional programmes identified in our research. Discussion of local actions including a summary of the Covenant of Mayors policy actions is given in Chapter 5. A summary and a discussion of good practices are presented in Chapter 6. Policy recommendations are drawn in the concluding Chapter 7.

⁴ Following the withdrawal of the United Kingdom from the Union on the 1 February 2020, the scope of the study was adjusted to cover only the EU27 Member States

2 Methodology and data sources

2.1 Research at national level

To assess financial and fiscal schemes that promote energy upgrades in existing buildings in the EU, a bibliographic analysis was first performed. This was based on information collected in the National Energy Efficiency Action Plans, Annual Reports under the Energy Efficiency Directive and Long Term Building Renovation Strategies. Schemes that have expired or suspended were not covered in the study. Economou et al. (2019) collected information on ongoing financial and fiscal programmes across Europe from various official sources (Table 1). The authors also reviewed reports and material available in EU Member States and gathered information from various policy measure databases such as the MURE and IEA databases as well as through various informal exchanges, such as expert workshops and consultations and interviews with experts from industry, financial institutions and international organisations. The research was conducted between June 2019 and December 2019. A high level summary of the main findings of the 2019 report is presented in Chapter 3.1.

To complement the findings of Economou et al. (2019), we reviewed the main financing-related updates identified in the final National Energy and Climate Plans submitted by Member States beginning of 2020 covering the period 2021-2030. The policies and measures presented in these plans were reviewed and new economic, financial and fiscal actions updates were selected. In some cases, additional information was derived from the Long Term Renovation Strategies.

Table 1. Main sources used to collect data

Source	Type	Description	Reference
National Energy Efficiency Action Plans	National reports published by EU countries to comply with EU law	Under the Energy Efficiency Directive (2012/27EU), EU countries must draw up these plans every three years and they must report the progress achieved towards their national energy efficiency targets on an annual basis.	Directive 2012/12/EU Article 24 and Annex XIV
Long term renovation strategies	National reports published by EU countries to comply with EU law	EU countries submitted strategies to show how they plan to foster investment in the renovation of residential and commercial buildings. These strategies were an obligation under Article 4 of the Energy Efficiency Directive and part of their National Energy Efficiency Action Plans.	Directive 2018/844/EU Article 2a (formerly Directive 2012/12/EU Article 4)
MURE database	Online database	MURE (Mesures d'Utilisation Rationnelle de l'Energie) provides information on energy efficiency policies and measures that have been carried out in the Member States of the European Union.	www.measures-odyssee-mure.eu
National Energy and Climate Plans	National reports published by EU countries to comply with EU law	Energy Efficiency is one of the 5 dimensions covered by the integrated national energy and climate plans covering the period 2021-2030	Energy Union Governance Regulation

Source: JRC

2.2 Research at regional and local levels

Questionnaire to regional experts

To collect data at regional and local levels, a questionnaire was designed and distributed to experts affiliated with regional and local governments/energy agencies across the EU. The information collected in the questionnaire is shown in Table 2. This included: 1. general information such as geographical scope and programme website, 2. design features such as policy type, eligibility conditions and minimum energy efficiency criteria, 3. various implementation details and 4. outcomes. The latter covered qualitative information on the level of achieved impact (low, medium, high) and quantitative data such as number of buildings benefitting from the scheme and achieved energy savings.

The questionnaire has been shared with a total of 267 experts. The majority of them, 205 units, are affiliated to regional energy agencies and local departments that handle energy renovations and building related topics. The remaining represents One Stop Shops (OSSs) and other types of specialized organizations among the EU (respectively 46 for the OSSs and 16 other experts). In Table 3, there is a summary of the number of the experts, divided by MS and affiliation.

Table 2. Information collected in questionnaire

General information	Name of scheme, Geographical level, Website
Policy design features	Type of policy, targeted sectors, beneficiaries, eligibility conditions, supported interventions, minimum energy efficiency criteria
Implementation details	Implementation period, implementation body, brief description, dissemination, budget, funding sources
Outcomes	Level of achieved impact; Total number of buildings, interventions, applications, etc.; Achieved energy savings, GHG reduction and other benefits

Source: JRC

Covenant of Mayors

Data collected within the Covenant of Mayors (CoM) initiative are also analysed, with the aim to derive insights on the extent and the types of financing mechanisms adopted by signatory municipalities across Europe. More particularly, the report uses as main source of the information the database of mitigation actions - focusing on *energy efficiency* and *local renewable energy sources* under the *Financing and provision mode of governance* for the building sector - reported by municipalities for the achievement of the European Climate 2030. Finally, the report also exploits the database of mitigation actions for the achievement of the European Climate 2020, to derive a temporal comparison of the reported mitigation actions - focusing on *energy efficiency* and *local renewable energy sources* under the *Financing and provision mode of governance* for the building sector.

2.3 Identification of good practices

Based on the methodology described by Economidou et al. (2019), we use a total of 6 criteria to assess good practices across the EU (two per each policy cycle): ambition of energy upgrades and outreach to hard-to-reach groups (design criteria), funding sustainability/continuity, scalability and replicability (implementation) and impact and cost-effectiveness. Table 4 describes in detail the evaluation criteria, including information on scoring criteria and measurement scale.

Table 3. Experts contacted by country and affiliation in the survey

MS	Energy Agencies/ Departments	One Stop Shops	Others	Total per MS
Austria	10	1	2	13
Belgium	4	5	1	10
Bulgaria	7	3	-	10
Croatia	5	-	-	5
Czechia	4	1	-	5
Cyprus	1	1	-	2
Denmark	7	7	1	15
Estonia	2	1	-	3
Finland	6	-	2	8
France	15	10	-	25
Germany	16	2	6	24
Greece	13	-	-	13
Hungary	5	1	-	6
Ireland	6	1		7
Italy	23	2	4	29
Latvia	2	-	-	2
Lithuania	3	-	-	3
Netherlands	8	4	-	12
Poland	14	-	-	14
Portugal	6	-	2	8
Romania	5	-	-	5
Slovakia	7	1	-	8
Slovenia	4	-	-	4
Spain	21	4	-	24
Sweden	10	1	-	11
Others	2	1	-	3
TOTAL	205	46	16	270

Source: JRC

Table 4. Assessment criteria used in the evaluation of schemes by Economidou et al. (2019)

I. Policy design		
Criterion	Description of policy instrument assigned with high score	Indicators/questions
Ambitious energy upgrades	Instruments that support comprehensive energy upgrades and/or encourage state of art renovations (beyond minimum requirements prescribed in building codes).	<ul style="list-style-type: none"> - Does the instrument offer packaged intervention measures? Does it support upgrades beyond minimum requirements prescribed by law? - Does the instrument provide more support for more ambitious projects?
Outreach to hard-to-reach groups	Instruments designed to alleviate fuel poverty or support vulnerable groups of the society (e.g. low-income households) and tackle segments of the building stock facing severe barriers (e.g. condominiums, multi-tenure or rented properties) through innovative approaches	<ul style="list-style-type: none"> - Is the scheme specifically designed to reach groups that would not be served by traditional financial models such as low income households or tenants? - Is more support foreseen for more vulnerable groups?
II. Policy implementation		
Criterion	Description of policy instrument assigned with high score	Indicators
Funding sustainability and continuity	Instruments that offer continuity based on lasting commitment by the government and sustain low pressure on public finances by using innovative funding mechanisms (e.g. revolving funds), diversified funding sources (e.g. blend national sources with EU Funds and other international sources) and earmarked funds from taxation of fossil fuel use.	<ul style="list-style-type: none"> - Has the scheme been in operation for a long time (e.g. at least 15 years of operation)? - Is the instrument combined with innovative mechanics such as revolving funds? - Is there diversification of funding (e.g. at least 2 different sources of funding)?
Scalability and/or Replicability	Instruments that offer scalability by addressing multiple buildings through aggregation techniques, smart tools such as technical assistance and third-party services (e.g. ESCOs), are easily replicable to other sectors, regions or countries and are designed to be combined with other measures or tools.	<ul style="list-style-type: none"> - Can support in different forms/mechanisms be combined? - Is the measure replicated to different regions and/or territorial level; - Does the measure consider different types of users (residential, commercial, public) and/or different type of buildings (single-family buildings, multi-family buildings, etc.)?
III. Policy outcome		
Criterion	Description of policy instrument assigned with high score	Indicators
Impact	Instruments with significant impact in terms of number of successful applications, triggered volume of investments, generated energy savings and other benefits.	Number of renovated households, dwellings, apartments, or number of projects for implementation of energy savings measures in the buildings per year.
Cost effectiveness	Instruments associated with low set-up and running costs compared to volume of investments or generated energy savings.	Ratio between the budget (EUR million/year) and the savings in terms of energy (TJ/year).

Source: JRC

3 Financing energy renovations at national level

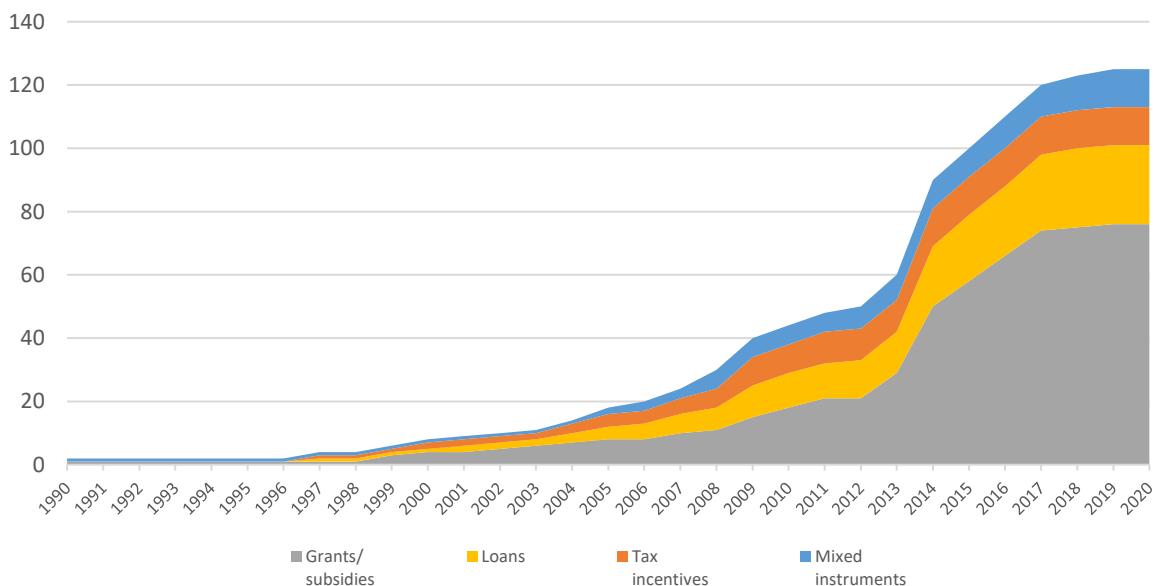
3.1 Summary of 2019 report

An extensive review of conventional and new financial mechanisms supporting energy renovations of buildings across the EU was undertaken by Economidou, Todeschi and Bertoldi (2019). The review provided a country-by-country overview and identified good practices and successful financial and fiscal instruments in residential, commercial and public buildings.

An overview of the identified financial and fiscal instruments by type of public policy and building is shown in Table 5. Of the 129 instruments examined, 78 were in the form of grants/subsidies, 25 loans/soft loans, 13 tax incentives and the remaining 13 a combination of the above. Up until 2019, grants and subsidies were deployed in almost all Member States, representing the main type of public policy support to-date for energy renovations in the EU. In particular, Ireland, Cyprus, Malta and Greece relied exclusively on grants and subsidies as their main policy response to address underinvestment in energy efficiency in the building sector. Soft loans were available in half of the EU countries, some of which were supported by state guarantees such as in Bulgaria, Estonia, France, Italy and Romania or designed as revolving funds (e.g. Bulgaria, Estonia, in the Netherlands and the UK). Tax incentives in the form of income tax incentives or VAT reduction schemes were active in Belgium, Denmark, Finland, France, Italy, Sweden and the Netherlands. For most countries, the main focus was the residential sector, with some instruments also targeting commercial buildings and/or public buildings or a different combination of building types. Finland, Ireland, Estonia, and Romania provided public support for residential buildings only, while France, Belgium, Italy and Portugal enacted all types of instruments for all types of buildings.

The distribution of public financial and fiscal instruments by starting year is depicted in Figure 2. It can be noted that a number of countries have had a long tradition in promoting energy efficiency before action at the EU level was taken, with some measures starting well before the 2000s. Specifically, Austria and France have implemented energy efficiency policy measures since 1970s. A sharp increase of measures starting in the period 2009 and 2014 is observed. This can be largely attributed to the introduction of the implementation of key Directives and financial framework period.

Figure 2. Cumulative distribution of public financial and fiscal instruments by starting year



Source: JRC

Table 5. Identified financial and fiscal instruments by type of public policy and building across the EU

	Grants/Subsidies			Loans/Soft Loans			Tax Exemption/Reduction			Mixed schemes		
	RES	COM	PUB	RES	COM	PUB	RES	COM	PUB	RES	COM	PUB
AT	✓	✓	✓							✓		
BE	✓	✓	✓	✓	✓	✓	✓	✓	✓			
BG	✓	✓		✓	✓	✓						
CY	✓	✓										
CZ	✓	✓	✓	✓	✓							
DE	✓	✓	✓	✓	✓	✓						
DK	✓						✓	✓	✓			
EE				✓								
EL	✓		✓									
ES	✓	✓	✓	✓						✓		✓
FI	✓						✓					
FR				✓	✓	✓	✓	✓	✓	✓	✓	✓
HR	✓	✓	✓									
HU	✓	✓	✓	✓								
IE	✓											
IT	✓	✓	✓	✓	✓	✓	✓	✓	✓			
LT	✓	✓	✓							✓		
LU	✓			✓	✓	✓						
LV	✓	✓	✓							✓		
MT	✓											
NL	✓	✓		✓			✓	✓				
PL	✓		✓							✓		
PT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
RO	✓			✓								
SE	✓						✓	✓	✓			
SI	✓		✓							✓	✓	
SK	✓	✓	✓	✓								
UK	✓	✓		✓		✓						

Source: JRC

Based on budget-related information collected for 85% of instruments, it can be deducted that around **EUR 15 billion** are roughly spent by public resources on an annual basis across the EU⁵. The largest schemes in terms of public resources are the Italian Eco-bonus tax rebate scheme, the French Energy Transition Tax Credit scheme, the German KfW Energy Efficient Refurbishment Programme and the Austrian Regional subsidies for energy efficiency in residential buildings (Economidou et al., 2019).

Good practices of public schemes have been identified using the 6 criteria described in section 2, ranging from impact to cost effectiveness and scalability. The global score computed for each of the pre-selected schemes enabled the identification and further investigation of 10 best practices. These included the French Energy Transition Tax Credit, Dutch Energy Investment Tax Deduction, Estonian Kredeks Credit and Export Guarantee Fund and KfW Energy Efficient Refurbishment Programme among others⁶. Since their inception, these programmes have collectively had a significant impact in terms of generated energy savings, supported ambitious energy upgrades and sustained relatively low pressure on public finances.

Whilst energy efficient lending is mostly integrated into mainstream products, private schemes offered as stand-alone energy efficiency loan products have also been identified. Examples include the Intesa San Paolo

⁵ It is important to note that these figures do not refer to any specific period, but rather represent a generic year during the duration of the given scheme. Depending on data availability for each scheme, this was taken as the average value over a specified period (preferred option) or the value given for a specific year or a typical year on average (alternative option).

⁶ More details can be found in the report published by Economidou et al. (2019).

Condominium Loan Scheme in Italy, Zagrebanks Green Housing loans in Croatia and Belifus housing retrofit programme in Belgium. Several banks have also tapped into energy efficiency mortgage sector in recent years, offering interest rate reductions based on the improved risk profile of energy efficient lending (Bertoldi et al., 2021). Notable examples include Raiffeisen bank in Eastern Europe, Nordea bank in Scandinavian countries and Muenchener Hyp in Germany. The Energy Efficient Mortgages Initiative, which is supported by the participation of 40 EU banks, aims to standardise the way energy efficiency mortgage products are designed across the EU (Economidou et al., 2019). Beyond traditional financing, crowdfunding has also gained some ground in recent years by offering support to sustainable energy projects through debt financing options. Even if crowdfunding platforms mainly focus on renewable energy investments, recent platforms such as CitizenEnergy, Bettervest, Econeers and Fundeen specialise on energy efficiency projects, too. This financing route however accounts only for a small share of the sector for now. Energy efficiency insurance, an innovative product which aims to shield from under-achievement and increase trust and awareness of energy efficiency projects, is currently used in Germany and the UK. Finally, specialised energy efficiency funds which third party participation have also been identified.

3.2 National updates in 2020

A summary of new financial and fiscal schemes on buildings is provided in Table 6. We focus on new actions and measures post-2020. Successors of older measures⁷ after 2020 or updated measures are therefore outside the scope of this section.

In terms of new **financial incentives**, some interesting initiatives include the planned Danish financial aid to building owners in 2021-2024 who renovate their buildings in accordance with specific energy savings. To maximise energy savings, the Danish authorities will allow projects to compete in terms of achieved energy savings per m² in the application phase. Energy labels for buildings will be an integral part of the scheme and an annual budget of DKK 200 million is foreseen. Belgium will introduce incentives for building renovations upon sale as of 2025, which will support investments included in the renovation roadmap. The Federal Belgian Government has also recently emitted Linear Green Bonds (Green OLO) for public expenses aiming to a transition to a sustainable economy. Eligible expenses for the period 2021-2030 will be identified in the domain of transport, buildings and energy in general.

In Malta, the planned support scheme for services and industry aims to generate energy savings in industry and services through the establishment of a scheme to promote and address energy efficiency investment. Enterprises will be encouraged to undertake EE projects through the availability of investment aid, linked to the amount of savings achieved. Portugal plans to set up different schemes for tackling energy poverty and enhancing vulnerable customer protection tools for residential sector. Measures include the promotion of a long-term strategy for combating energy poverty, the support of the integration of renewable energies and the establishment of a national energy poverty assessment and monitoring system. Spain has planned a framework for the development of thermal renewable energies, promotion of RES in heating and cooling, and substitution of fossil fuels, with the overall objective to double the RES share in heating and cooling.

A few countries have also specified the development of dedicated funds. In the Netherlands, a Heating Fund of between €50 million and €80 million is also recently announced by the Dutch authorities. The fund will offer owner-occupants and Owners' Associations financing at low interest rates and long terms. The fund aims to provide funding options for those who are currently struggling or unable to receive funding under the loan standards and is expected to build on the current National Energy Saving Fund (NEF). There is moreover a plan for achieving reduction of emissions by connecting 100 000 dwellings to heat (heat networks or heat pumps), gaining experience with community oriented approaches and reducing costs of conversions. Romania plans to create a new Energy Efficiency National Fund (EFE), financed with private funds, structural funds and possibly also funds derived from the State budget. It will be created as a single publicly administered fund for financing investments in energy efficiency improvement measures in various sectors of the economy.

Slovakia has been adopted a measure to support the introduction and improvement of technical systems in buildings. The aim of the measure is to reduce the energy performance of buildings and also to reduce emissions by implementing measures enhancing the energy efficiency of technical systems and the introduction of RES. The planned budget come from a mixed pool of sources, which includes state budget,

⁷ such as the ones presented in the National Energy Efficiency Action plans of 2017

urban budget, municipalities and higher territorial units, own resources financing, EU funds, Slovak Investment Holding and Guaranteed Energy Service (GES).

Cyprus has adopted an energy fund for soft loans on energy efficiency, with the scope to provide low interest loan to cover the capital cost for implementing energy efficiency investments in households, SMEs and public sector. It will be implemented by the National Government and local banks with an initial budget of EUR 60 million up to 2023 and projection for continuation after 2023.

Ireland plans a New Delivery Structure for renovations including the development of new retrofitting delivery model with the aim to group retrofits together, achieve economies of scale, leverage private finance, and ensure easy pay-back methods for homeowners. It also plans to upgrade Local Authorities housing stock under Phase 2 of social housing retrofit programme to bring dwellings more than 40 years old to a B2 equivalent BER. Among other measures is the Public Sector Energy Efficiency Strategy and its associated support programme designed to achieve national energy efficiency targets of 33% by 2020 and 50% by 2030 and the development of smart finance initiative to offer guarantee-based product. Slovenia also plans to establish a guarantee scheme in 2022 targeting buildings under the new long term building renovation strategy.

A number of new **fiscal** schemes are identified in various countries, which directly or indirectly promote energy upgrades in the building sector. Examples include a reduction in the duration of depreciation of investments in certain energy efficiency measures in companies in Austria. Belgium plans to put in place modulation of registration, inheritance and donation rights based on building energy performance. This will be achieved in such a way that reductions applied to better performing buildings will compensate increases to worse performing buildings according to a so-called rule of budget neutrality. The same modulation will also be applied for property tax, where better performing buildings will benefit from lower tax provisions. Portugal has decided to continue with green taxation policies, with the measure tackling taxation for the decarbonisation of the residential and services sector. That procedure will contribute toward encouraging more sustainable patterns of production and consumption. In Spain, there is a plan to adapt the tax system to promote a low carbon economy with the Greening the tax system measure, however no details are disclosed on the impact on the building sector.

Tax incentive schemes directly supporting energy upgrades in existing buildings are also identified. Germany recently adopted a tax incentive scheme in 2020 for energy renovations in buildings. This is expected to complement existing support schemes for buildings and can be used as an alternative to investment support schemes. Support will be given to individual refurbishments of owner-occupied dwellings, which are also considered eligible under the existing building support programmes. It includes individual measures such as the replacement of heating system, but also the installation of new windows or the insulation of roofs and external walls. The aid, which can cover up to 20 % of the investment costs, is granted by means of a tax deduction spread over a 3-year period. The Netherlands has set out the new Reduction of Landlord Levy for Sustainability Measures (LVV) scheme. Starting in 2022, the Reduction of Landlord Levy (RVV) scheme is a tax scheme targeting landlords of rented housing in the regulated rental sector who want to improve the energy performance of rented housing. Under this new scheme, these actors can receive a contribution to the sustainability of their rental housing, comparable with the current STEP (Incentive Scheme for Energy Performance in the Rental Sector).

Poland plans to implement a tax relief scheme for expenditure on thermo-modernisation projects. The tax incentive, which is designed to lower personal income tax, aims to boost demand in thermal modernisation of single family houses. This comes after evidence has shown that the current thermo-modernisation scheme granting a 20% bonus to loans taken out for thermo-modernisation projects in residential buildings has been insufficient to achieve the desired effects. The tax incentive aims to encourage household owners to replace outdated furnaces and heat their homes at night with electricity in single family houses. The scheme aims to lower demand for thermal energy and reduce pollution emissions from the process of burning fuels for heating.

Table 6. New financial and fiscal schemes supporting energy renovations identified in the National Energy and Climate Plans

	Policy name	Policy type	Implem. status	Sector
AT	Financial incentives for energy efficiency investments in companies	Economic/ Fiscal	Planned	Cross-sectoral
	Targeted financial support for comprehensive renovations or partial renovations	Economic/ Fiscal	Under discussion	Buildings
BE	Budget commitment for renovation of federal buildings	Financial	Planned	Public buildings
	Linear Green Bonds (Green OLO)	Economic	Implemented	Cross-sectoral
	Premium for thermal retrofit measures	Economic	Planned	Residential
	Incentive to building renovation upon sale	Economic	Planned	Residential, services, public
	Modulation of registration, inheritance and donation rights based on building energy performance	Fiscal	N/A	Residential, services, public
	Modulation of property tax based on building energy performance	Fiscal	N/A	Residential, services, public
BG	Energy efficiency obligation scheme	Economic/ Regulatory	Implemented	Cross-sectoral
CY	Green tax reform	Fiscal	Provisional	Cross-sectoral
	Energy Fund for soft loans on energy efficiency	Economic	Adopted	Cross-sectoral
CZ	Modernisation fund	Economic	Adopted	Cross-sectoral
DE	Tax incentives for energy renovation of buildings	Fiscal	Adopted	Buildings
	Urban energy renovation	Economic	Planned	Buildings
DK	Subsidy scheme on buildings	Economic	Adopted	Buildings
	Private enterprise subsidy scheme	Economic	Adopted	Services, Industry
EE	Further reconstruction of public and commercial buildings	Economic	Planned	Services, Public
	Further renovation of private and multi-dwelling buildings	Economic	Planned	Residential
EL	Urban bioclimatic renovation	Economic, Regulatory	Planned	Buildings
	Energy upgrading of residential buildings and energy vulnerable households	Economic	Planned	Buildings
	Financial programmes for implementing recommendations from energy audits in obliged and non-obliged parties	Economic	Planned	Services, Industry
ES	-	-	-	-
FI	-	-	-	-
FR	Building renovation plan	Fiscal	Planned	Buildings
	Financial incentives to replace coal-fired heating systems	Economic	Planned	Buildings
HR	Energy renovation programme for heritage buildings	-	Planned	Buildings

HU	Promotion of the modernisation of household heating equipment and of the use of modern biomass based heating fuels to ensure the sustainable use of fuel wood		Planned	Residential
IE	Support for heat pumps and roof solar	Economic	Planned	Residential
	Energy poverty strategy	Economic	Implemented	Residential
IT	Energy efficiency measures program promoted by cohesion policies 2021-2027	Economic	Planned	Buildings, industry, transport and supply
LT	-	-	-	-
LU	Reduced VAT rate of 3 % for renovation measures	Fiscal	Planned	Buildings
LV	-	-	-	-
MT	Support Scheme for Services and Industry	Economic	Planned	Services, Industry
NL	Reduction of Landlord Levy for Sustainability Measures (RVV)	Fiscal	Implemented	Buildings
	Heating fund	Economic	Planned	Buildings
PL	Tax relief for expenditure on thermomodernisation of single family houses	Fiscal	Planned	Buildings
PT	Taxation for the decarbonisation of the residential and services sectors	Fiscal	Planned	Energy, Industry, Services, Mobility and transports
RO	Energy Efficiency National Fund (EFE)	Economic	Planned	Cross-sectoral
SE	-	-	-	-
SI	Establishment of a guarantee scheme	Economic	Planned	Buildings
	Financial incentives for demonstration projects	Economic	Planned	Cross-sectoral
SK	Support for the introduction and improvement of technical systems in buildings	Economic	2021-2030	Buildings

Source: JRC based on data retrieved from National Energy and Climate Plans https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en

4 Actions and programmes at regional level

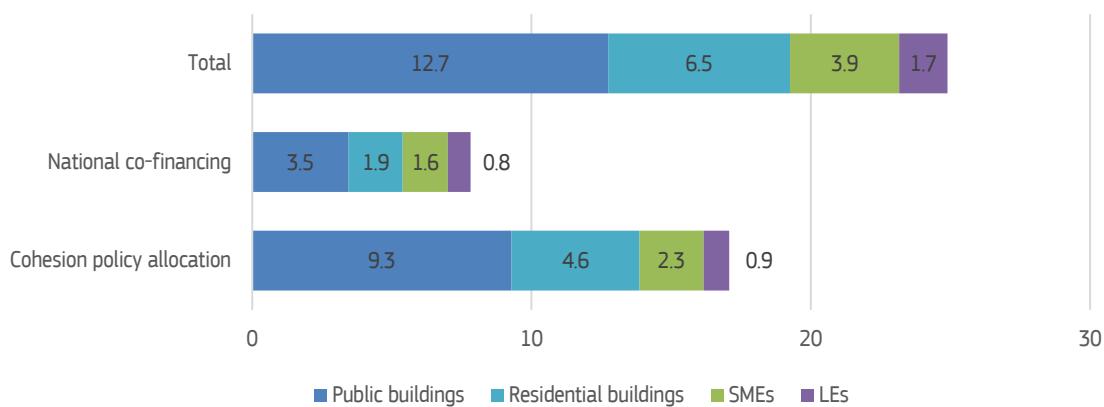
4.1 Support of regions through ERDF and the Cohesion Funds

The EU cohesion policy makes a key contribution to energy efficiency through significant financial allocations from the European Regional Development Fund (ERDF) and the Cohesion Fund (CF). The ERDF aims to strengthen economic and social cohesion in the European Union by correcting imbalances between its regions. The Cohesion Fund, which supports Member States with Gross National Income (GNI) per inhabitant less than 90 % of the EU average, aims to reduce economic and social disparities and to promote sustainable development. In the period 2014-2020, the Cohesion Fund provided support in Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia and Slovenia.

The European Structural and Investment Funds (ESFI) under the broad theme of “Low-Carbon Economy” (Theme 04), invest in a range of CF and ERDF priorities to support the shift towards a low-carbon economy in all sectors⁸. Notably, ESFI funds promote interventions that support energy efficiency investments in public buildings (Dimension 13), residential buildings (Dimension 14), small and medium enterprises (SMEs) (Dimension 68) and large enterprises (Dimension 70)⁹. The types of ESFI funds that directly support building renovations at regional level are the European Regional Development Fund (ERDF) and Cohesion Fund (CF), which provide grants or financial instruments, wherein these latter can support national and/or regional programmes depending on the scope set by each Member State.

As Figure 3 shows, Cohesion policy funds represent a substantial portion of the overall funding for energy efficiency renovation, and follow the same priorities given by national co-financing, namely the renovation of public buildings, followed by residential, SMEs and LEs. In total, nearly EUR 25 billion have been allocated over the period 2014-2020 on energy efficiency investments in buildings, with 69% stemming from EU cohesion policy funds. Nearly half of the total funds (EUR 12.7 billion) have been allocated to investments in public buildings up to 2019.

Figure 3. Cohesion policy allocation with EU funding (in billion EUR) for energy efficiency, including Interreg, plus national co-financing in the period 2014-2020



Source: JRC elaboration based on DG REGIO summary (available at <https://cohesiondata.ec.europa.eu/>)

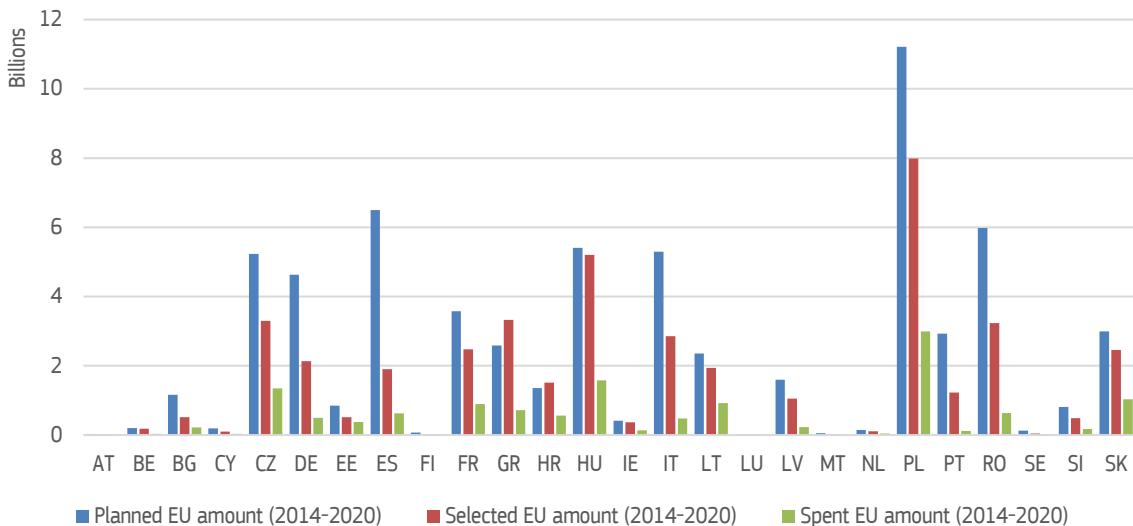
⁸ <https://cohesiondata.ec.europa.eu/themes/4#>

⁹ <https://cohesiondata.ec.europa.eu/2014-2020-Categorisation/ESIF-2014-2020-categorisation-ERDF-ESF-CF-planned-/3kkx-ekfq>

4.1.1 Public sector and residential buildings (categories 013 & 014)

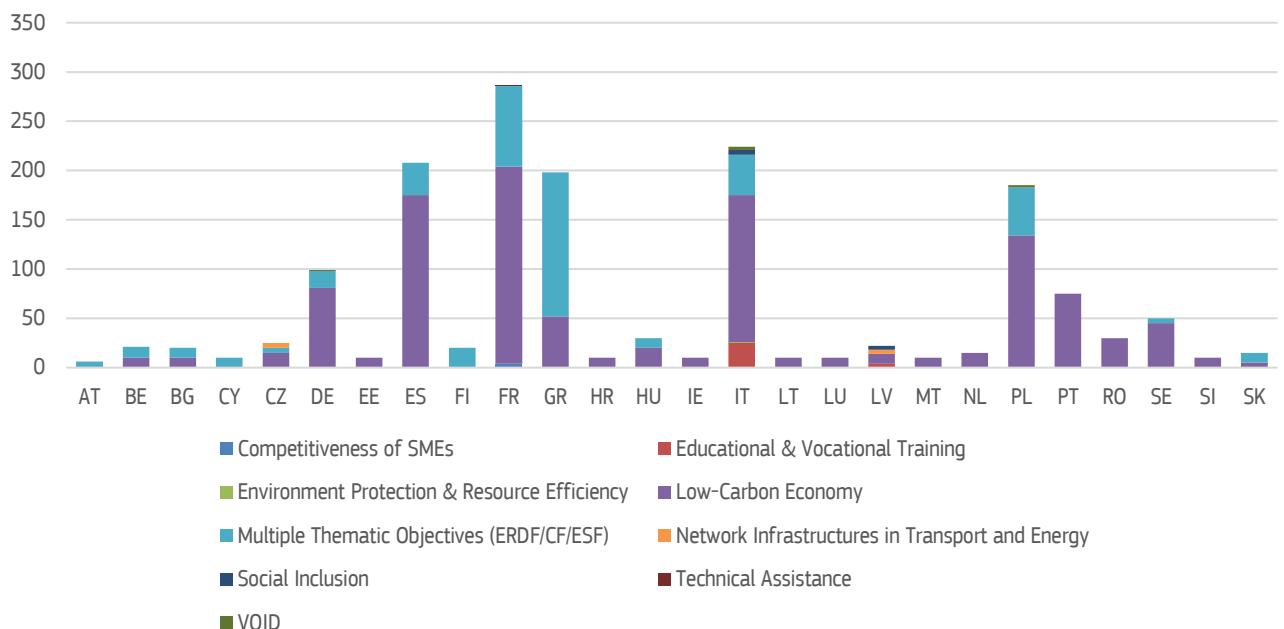
The total investments supported by ERDF and CF for energy efficiency in public and residential buildings in EU countries from 2014 up to 2020 are depicted in Figure 4. The largest cumulative planned EU amounts until 2020 are associated with Poland, Romania, Spain, Hungary, Italy and Czech Republic. Up to 2020, all countries have spent part of the available funds in line with the duration of the programme (until 2023).

Figure 4. Planned, selected and spent EU cohesion policy funds in billion EUR for energy efficiency investments in residential and public sectors (2014-2020) (all thematic objectives)



Source: JRC elaboration based on ESIF dataset, updated June 2021 (available at <https://cohesiondata.ec.europa.eu/2014-2020-Categorisation/ESIF-2014-2020-categorisation-ERDF-ESF-CF-planned-/3kkx-ekfq>)

Figure 5. Total number of programmes in residential and public sectors and types of ESIF for all thematic objectives (2014-2020)



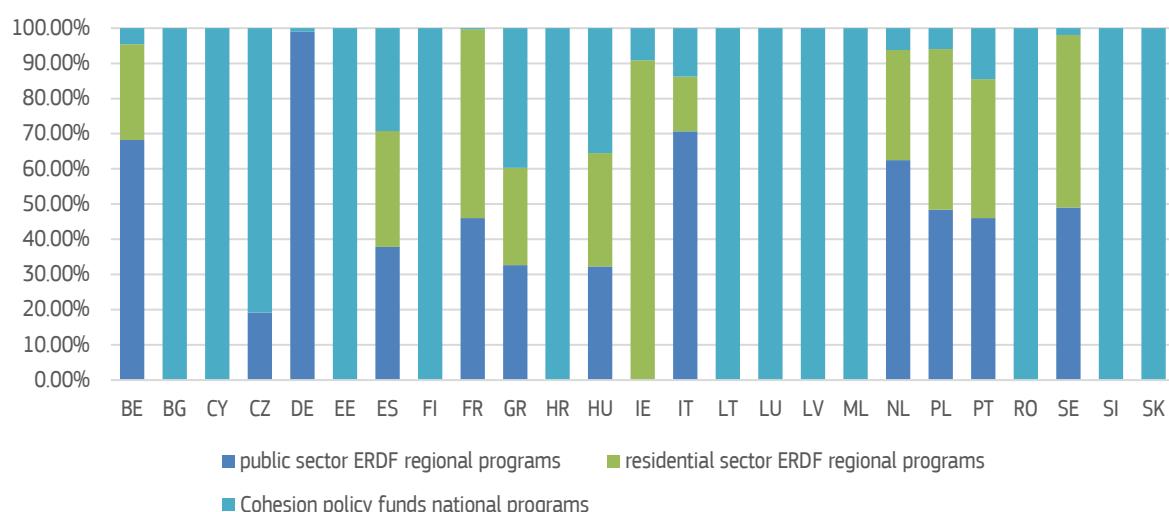
Source: JRC elaboration based on ESIF dataset, updated June 2021 (available at <https://cohesiondata.ec.europa.eu/2014-2020-Categorisation/ESIF-2014-2020-categorisation-ERDF-ESF-CF-planned-/3kkx-ekfq>)

Figure 5 shows the majority of programmes dedicated to the energy efficiency of public and residential buildings fall under the ESIF thematic objective “Low Carbon Economy”, which helps Member States, regions, local government and cities to implement investments in energy efficiency, such as in buildings¹⁰. Only in some countries (such as Austria Cyprus and Finland), programmes dedicated to the energy efficiency of public and residential buildings exclusively fall under the category “Multi-Thematic Objectives”, for which the objective “Low Carbon Economy” is only one among others.

In the following, we analyse the above programmes covering all ESIF thematic objectives. Therefore, the analysis comprises a broader view of programmes that might not be exclusively targeted to investments for the improvement of buildings.

The share of regional and national programmes supported by ERDF and CF for energy efficiency improvements in public and residential buildings varies across EU countries (Figure 6). In particular, Bulgaria, Cyprus, Estonia, Finland, Croatia, Lithuania, Luxembourg, Latvia, Malta, Romania, Slovenia and Slovakia earmarked their cohesion policy funds in national programmes only. Other countries, such as Belgium, Czech Republic, Spain, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal and Sweden allocated the cohesion policy funds for national programmes only for a small share. With the exception of Ireland and France, which for a larger part used ERDF funds for regional programmes in the residential sector, generally all countries used ERDF funds for regional programmes predominantly in the public sector, as opposed to regional programmes the residential sector.

Figure 6. Share of regional and national programmes for energy efficiency investments in residential and public sectors (all thematic objectives)



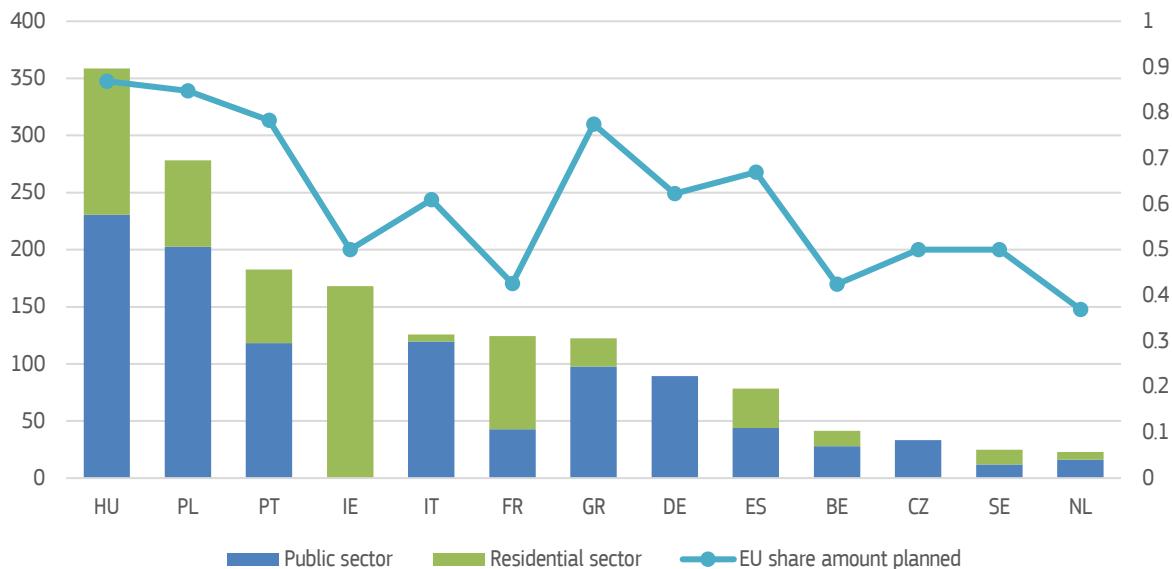
Source: JRC summary based on latest ESIF database (available at <https://cohesiondata.ec.europa.eu/>)

The analysis that follows will only consider **regional** programmes.

Looking at Figure 7, Hungary and Poland followed by, Italy, Portugal, Greece and Germany stand out as the countries with the highest planned amounts per capita for energy efficiency investments in the public sector. Conversely, Ireland, Hungary and France, followed by Poland, Portugal Spain and Greece stand out as the countries with the highest planned amounts per capita for energy efficiency investments in residential buildings. In all cases, the EU planned amounts per capita contributes proportionally to the planned amounts by each country, but this can range from 36.6% in case of the Netherlands to 86% in Hungary. This variation is linked to different co-financing rates according to the category of regions.

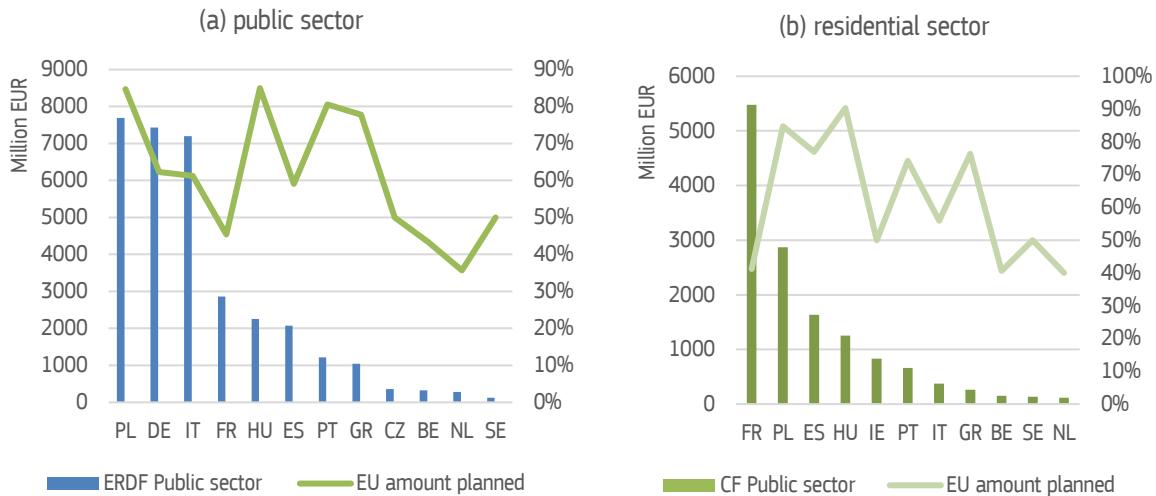
¹⁰ https://ec.europa.eu/regional_policy/EN/policy/themes/low-carbon-economy/

Figure 7. Total ERDF and CF amounts planned, including national co-financing, (in EUR) per capita spent on energy efficiency investments in residential and public sectors – all Thematic Objectives (EU shares represent the EU planned amount versus the total planned amount including national co-financing in the programmes in each country)



Source: JRC elaboration based on ESIF dataset, updated June 2021 (available at <https://cohesiondata.ec.europa.eu/2014-2020-Categorisation/ESIF-2014-2020-categorisation-ERDF-ESF-CF-planned-3kkx-ekfq>)

Figure 8. Total ERDF and CF amounts planned, including national co-financing - All thematic objectives(in billion EUR) on energy efficiency investments in (a) public sector and (b) residential buildings - All thematic objectives (EU shares represent the amount of EU planned amounts versus the total planned amount including national co-financing in the programmes in each country)



Source: JRC elaboration based on latest ESIF database

Table 7. Largest CF and ERDF regional programmes on residential and public buildings (all thematic objectives)

Country	Program Title	Total planned amount (in EUR)
Hungary	Territorial and settlement Development - HU - ERDF/ESF	2253627708
Italy	Sicilia - ERDF	1663477837
Germany	Sachsen - ERDF	1599314146
Poland	Śląskie Voivodeship - ERDF/ESF	1407532874
Germany	Sachsen-Anhalt - ERDF	1383318213
Italy	Puglia - ERDF/ESF	1274742396

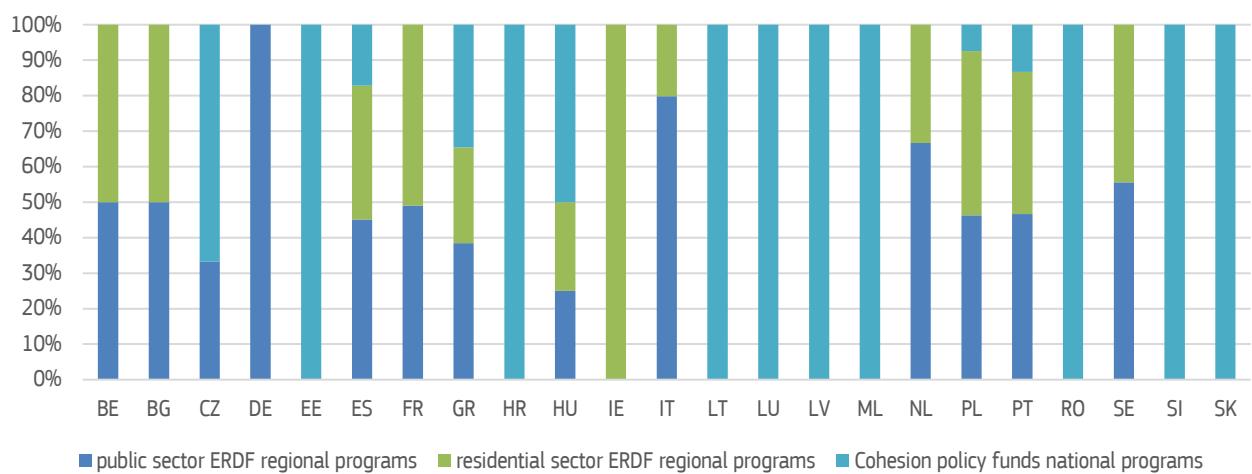
Source: JRC elaboration based on latest ESIF database

As shown in Figure 8, the total amounts planned for public buildings are overall higher than those for residential buildings, even though important national variations exist. ERDF funds are used exclusively by all countries. The six largest regional programmes, shown in Table 7, were located in Hungary and Poland.

The analysis that follows will focus only on programmes under the category “Low Carbon Economy”.

The share of regional and national programmes supported by ERDF and CF for energy efficiency improvements in public and residential buildings varies across EU countries (Figure 9). In particular, Estonia, Croatia, Lithuania, Luxembourg, Latvia, Malta, Romania, Slovenia and Slovakia earmarked their cohesion policy funds in national programmes only. Other countries, such as Czech Republic, Spain, Greece, Hungary, Poland, and Portugal allocated the cohesion policy funds for national programmes only for a small share. With the exception of Ireland, which exclusively used ERDF funds for regional programmes in the residential sector, generally all countries used ERDF funds for regional programmes predominantly in the public sector, as opposed to regional programmes the residential sector.

Figure 9. Share of regional and national programmes for energy efficiency investments in residential and public sectors
(Thematic objective: Low Carbon Economy)



■ public sector ERDF regional programs ■ residential sector ERDF regional programs ■ Cohesion policy funds national programs

Source: JRC elaboration based on latest ESIF database

The analysis that follows will only consider **regional** programmes under the Low Carbon Economy category.

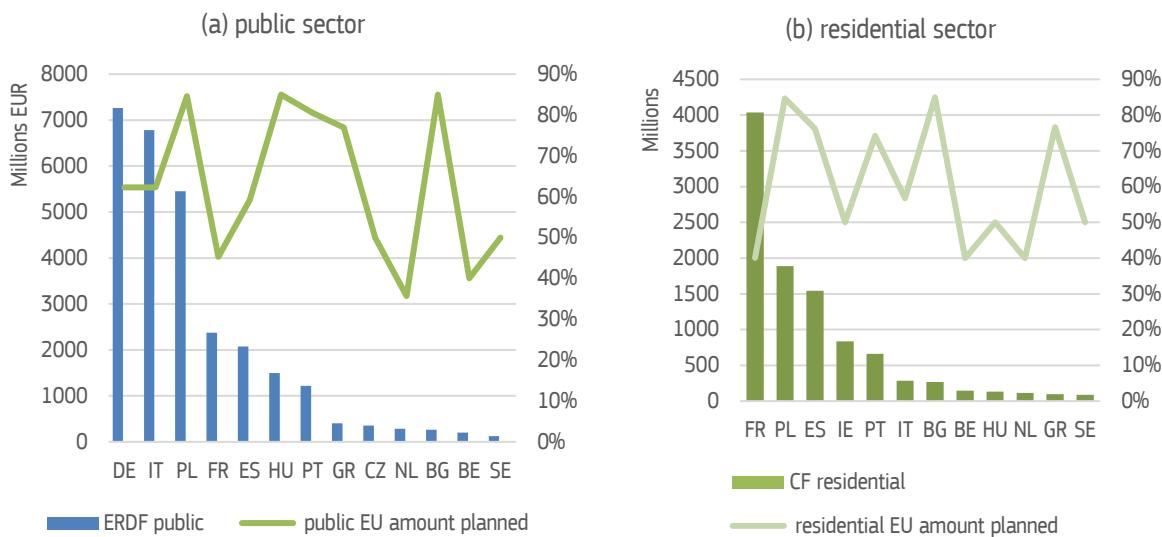
Looking at Figure 10, Poland followed by Hungary, Portugal, Italy and Germany stand out as the countries with the highest planned amounts per capita for energy efficiency investments in the public sector. Conversely, Ireland, Portugal, France and Poland, followed by Belgium and Spain stand out as the countries with the highest planned amounts per capita for energy efficiency investments in residential buildings. In all cases, the EU planned amounts per capita contributes proportionally to the planned amounts by each country, but this can range from 37% in case of the Netherlands to 85% in Poland and Bulgaria. This variation is linked to different co-financing rates according to the category of regions.

Figure 10. Total ERDF and CF amounts planned, including national co-financing, (in EUR) per capita spent on energy efficiency investments in residential and public sectors – TO: Low Carbon Economy (EU shares represent the EU planned amount versus the total planned amount including national co-financing in the programmes in each country)



Source: JRC elaboration based on latest ESIF database

Figure 11. Total ERDF and CF amounts planned, including national co-financing (in billion EUR) on energy efficiency investments in (a) public sector and (b) residential buildings. Thematic objective: Low carbon economy (EU shares represent the amount of EU planned amounts versus the total planned amount including national co-financing in the programmes in each country)



Source: JRC elaboration based on latest ESIF database

As shown in Figure 11, the planned amounts for residential sector are lower than those declared for the public sector, even though important national variations exist. ERDF funds are used exclusively by all countries. The six largest regional programmes, shown in Table 8, were found in Italy, Germany, Hungary and Poland.

Table 8. Largest CF and ERDF regional programmes on residential and public buildings (thematic objective: Low Carbon Economy)

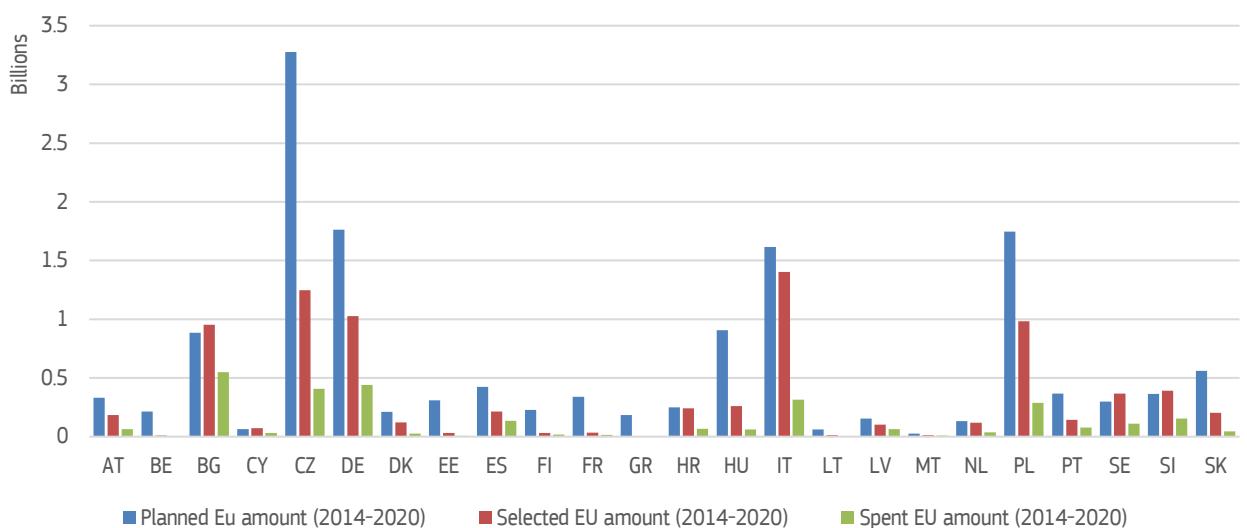
Country	Program Title	Total planned amount (in EUR)
Italy	Sicilia - ERDF	1663477836
Germany	Sachsen - ERDF	1537589096
Hungary	Territorial and settlement Development - HU - ERDF/ESF	1500428047
Germany	Sachsen-Anhalt - ERDF	1383318213
Italy	Puglia - ERDF/ESF	936996837
Poland	Pomorskie Voivodeship - ERDF/ESF	906882754.8

Source: JRC elaboration based on latest ESFI database

4.1.2 Small, medium and large enterprises (categories 068 & 070)

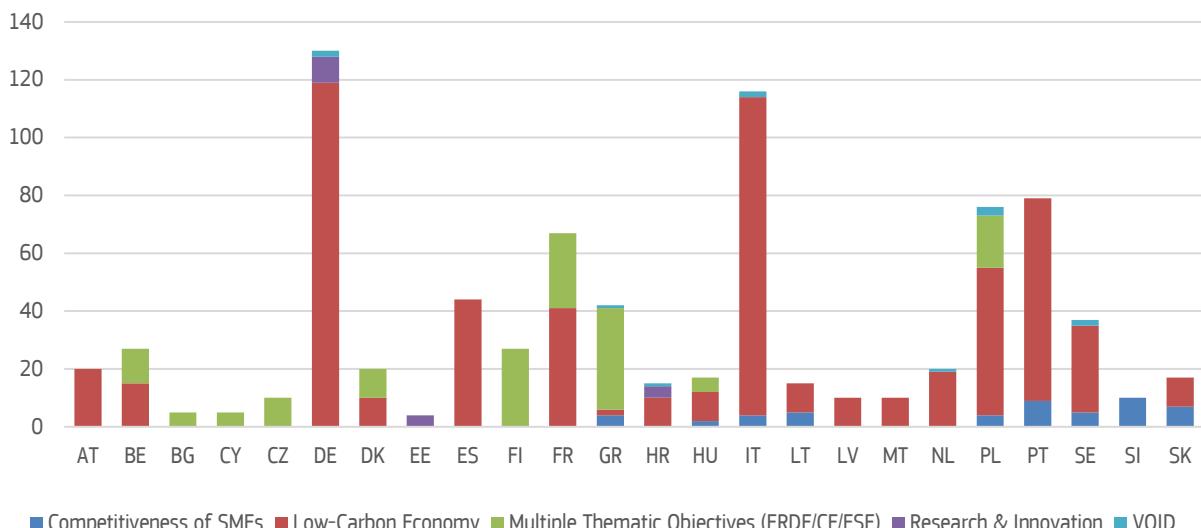
An overview of energy efficiency investments in small and medium enterprises (SMEs) and large enterprises (LEs) supported by ERDF and CF funds from 2014 up to 2020 are shown in Figure 12. The largest cumulative planned EU amounts until 2020 are associated with Czech Republic, Poland, Germany, Italy and Hungary. Up to 2020, all countries have spent part of the available funds in line with the duration of the programme (until 2023).

Figure 12. Planned, selected and spent EU cohesion policy funds in billion EUR for energy efficiency investments in SMEs and large enterprises (2014-2020) - All thematic objectives



Source: JRC elaboration based on ESIF dataset, updated June 2021 (available at <https://cohesiondata.ec.europa.eu/2014-2020-Categorisation/ESIF-2014-2020-categorisation-ERDF-ESF-CF-planned-/3kxx-ekfq>)

Figure 13. Total number of programmes in SMEs and Large Enterprises and types of ESIF thematic objectives (2014-2020)



Source: JRC elaboration based on ESIF dataset, updated June 2021 (available at <https://cohesiondata.ec.europa.eu/2014-2020-Categorisation/ESIF-2014-2020-categorisation-ERDF-ESF-CF-planned-3kkx-ekfq>)

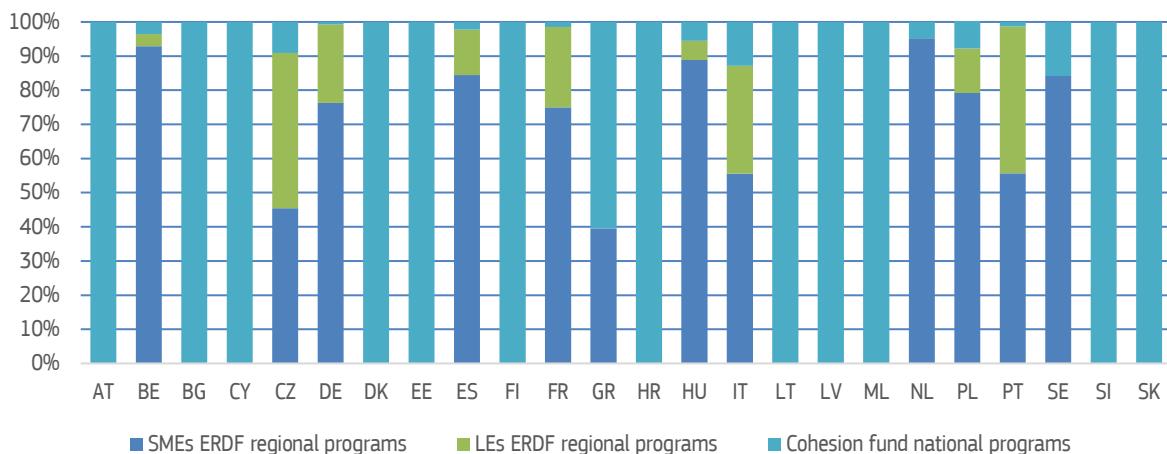
Figure 13 shows the majority of programmes dedicated to the energy efficiency of public and residential buildings fall under the ESIF thematic objective “Low Carbon Economy”, which helps Member States, regions, local government and cities to implement investments in energy efficiency, such as in buildings¹¹. Only in some countries (such as Bulgaria, Cyprus, Czech Republic and Finland), programmes dedicated to the energy efficiency of SMEs and Large Enterprises exclusively fall under the category “Multi-Thematic Objectives”, for which the objective “Low Carbon Economy” is only one among others.

In the following, we analyse the above programmes falling under all thematic objectives. Therefore, the analysis comprises a broader view of programmes that might not be exclusively targeted to investments for the improvement of buildings of SMEs and Large Enterprises.

The share of regional and national programmes supported by ERDF and CF for energy efficiency in enterprises varies across EU countries. In particular, Austria, Bulgaria, Cyprus, Denmark, Estonia, Finland, Croatia, Lithuania, Latvia, Malta, Slovenia and Slovakia planned their allocated cohesion policy funds only in national programmes. Other countries, such as Belgium, Czech Republic, Spain, Hungary, Italy, Netherlands, Poland and Portugal planned the cohesion policy funds for national programmes only for a small share. The majority of countries used ERDF funds for regional programmes for SMEs, with the exception of Czech Republic, Germany, Spain, France, Hungary, Italy, Poland and Portugal, which also invested ERDF funds for LEs.

¹¹ https://ec.europa.eu/regional_policy/EN/policy/themes/low-carbon-economy/

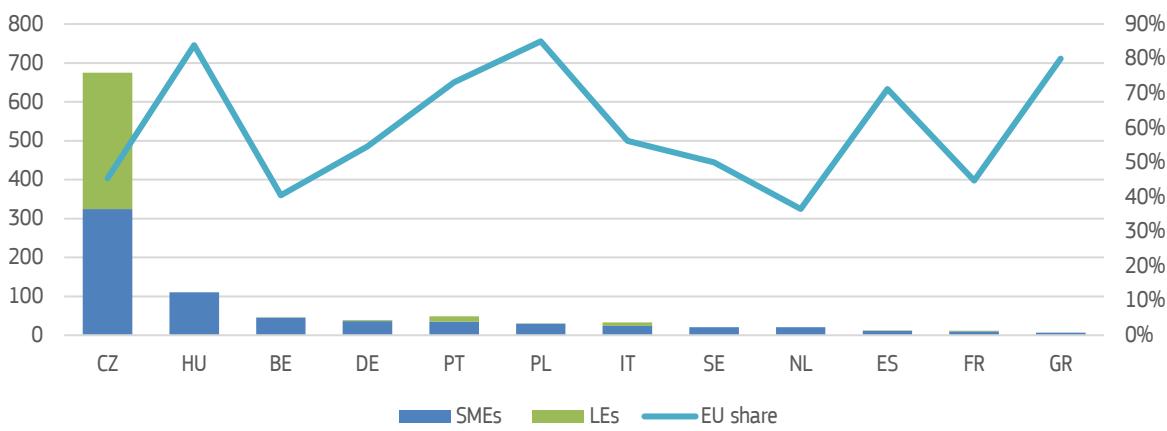
Figure 14. Share of regional and national programmes for energy efficiency investments in enterprises (all thematic objectives)



Source: JRC elaboration based on latest ESIF database

Looking at Figure 15, Czech Republic, Hungary, Belgium, Germany, Portugal, and Poland, Italy, Germany and Spain stand out as the countries with the highest planned amounts for energy efficiency for SMEs per capita. Conversely, Czech Republic, Portugal and Italy stand out as the countries with the highest planned amounts for energy efficiency for LEs per capita, which is in any case is way lower than the planned amounts for SMEs. In all cases, the EU share contributes proportionally to the eligible expenditure incurred by each country, ranging from just 37% in the Netherlands to 84% in Poland. This variation is linked to different co-financing rates depending on the category of region.

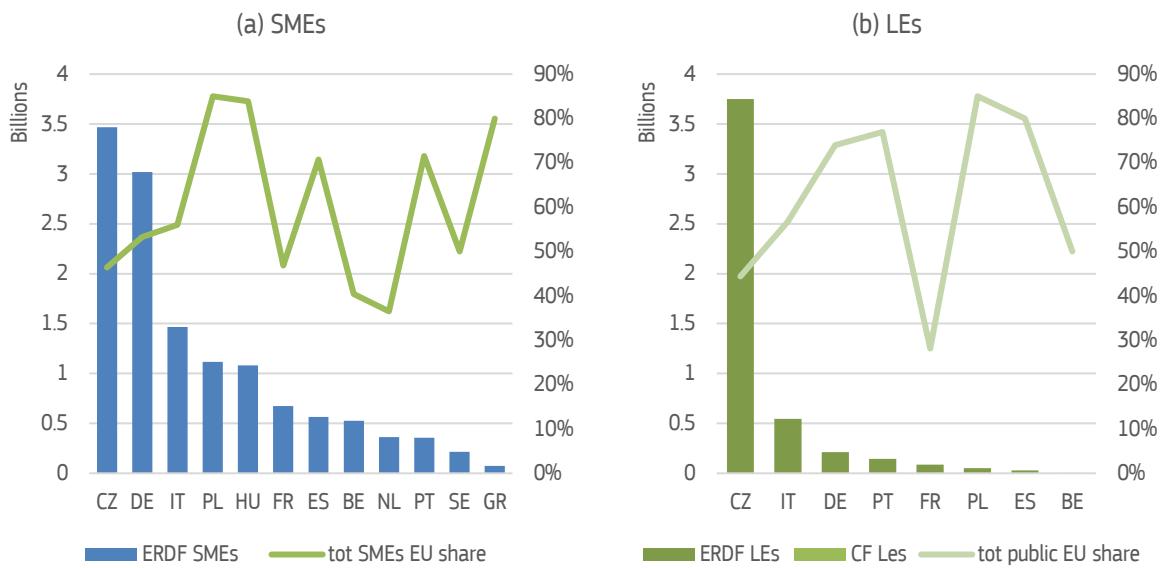
Figure 15. Total ERDF and CF amounts planned, including national co-financing, (in EUR) per capita spent on energy efficiency investments in enterprises - All thematic objectives (EU shares represent the EU planned amount versus the total planned amount including national co-financing in the programmes in each country)



Source: JRC elaboration based on latest ESIF database

As shown in Figure 16, the expenditures declared for LEs are lower than those declared for SMEs, even though important national variations exist. ERDF funds are used exclusively by all countries. The six largest regional programmes, shown in Table 9, were found in Germany, Italy, Spain and Poland.

Figure 16. Total ERDF planned amounts (in billion EUR) on energy efficiency investments in (a) small and medium enterprises (SMEs) and (b) large enterprises (LEs) (EU shares represent the amount of EU planned amount versus the total planned amount including national co-financing in the programmes in each country) - All thematic objectives



Source: JRC elaboration based on latest ESIF database

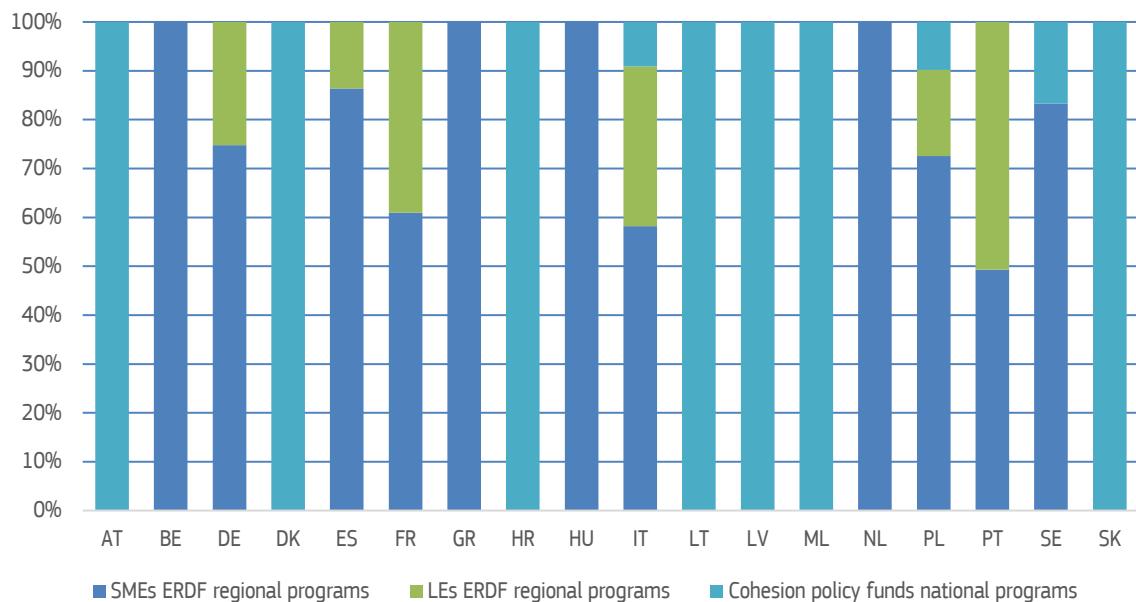
Table 9. Largest regional CF and ERDF programmes on SMEs and LEs (all thematic objectives)

Country	Programme Title	Total planned amount (in EUR)
Czech Republic	Enterprise and Innovation for Competitiveness - CZ - ERDF	7217533731
Hungary	Economic Development and Innovation Programme - HU - ERDF/ESF/YEI	957307490
Germany	Bayern - ERDF	668333334
Belgium	Wallonia - ERDF	461694060
Germany	Nordrhein-Westfalen - ERDF	459580336
Germany	Thüringen - ERDF	445625000

Source: JRC elaboration based on latest ESFI database

The analysis that follows will focus only on programmes under the category “Low Carbon Economy”. The share of regional and national programmes supported by ERDF and CF for energy efficiency improvements in enterprises varies across EU countries (Figure 6). In particular, Austria, Denmark, Croatia, Lithuania, Latvia and Slovakia earmarked their cohesion policy funds in national programmes only. Other countries, such as Italy, Poland, and Sweden allocated the cohesion policy funds for national programmes only for a small share. With the exception of Portugal, Italy and France, which in a large part used ERDF funds for regional programmes in the large enterprises, generally all countries used ERDF funds for regional programmes predominantly in the SMEs.

Figure 17. Share of regional and national programmes for energy efficiency investments in enterprises (TO: Low Carbon Economy)

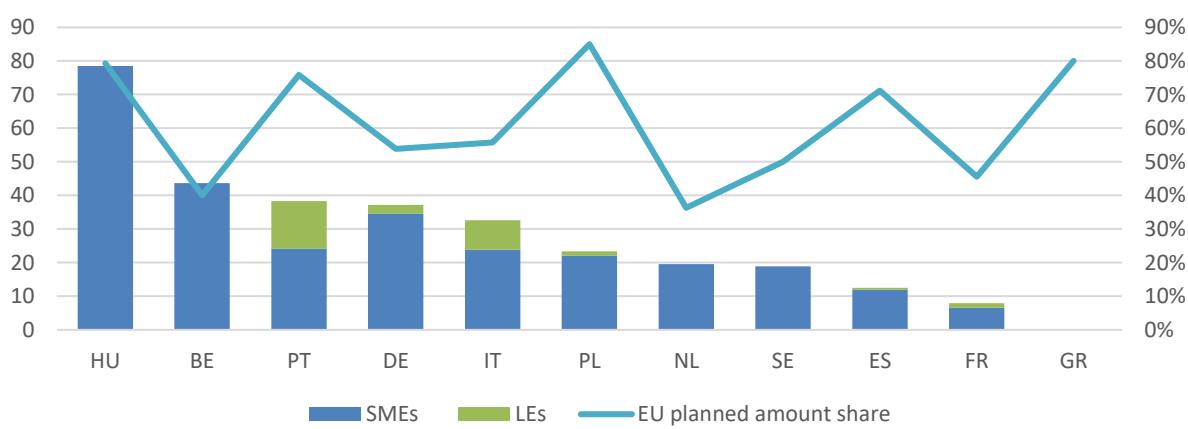


Source: JRC elaboration based on latest ESFI database

The analysis that follows will only consider **regional** programmes under the Low Carbon Economy category.

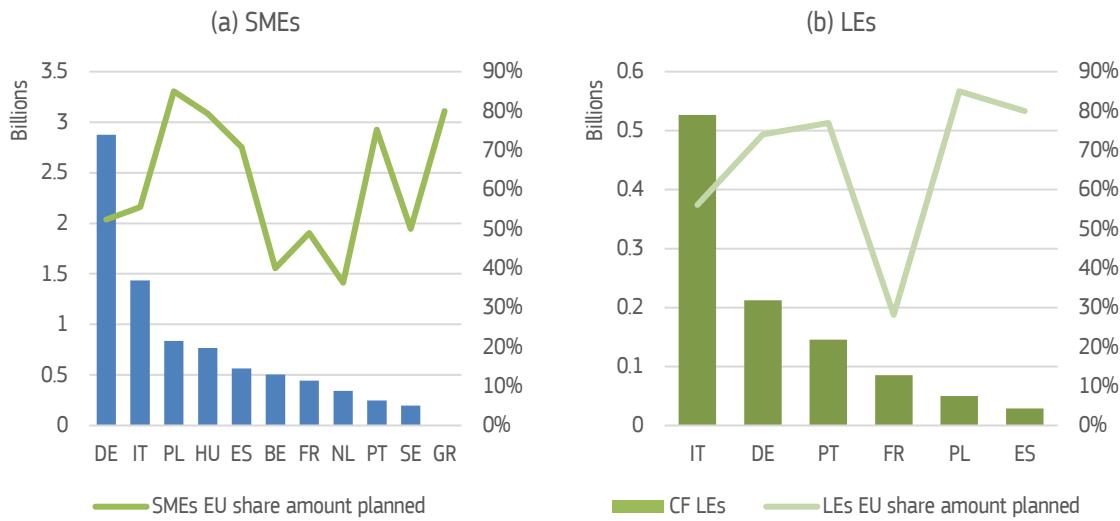
Looking at Figure 18, Hungary followed by Belgium, Germany, Portugal and Poland stand out as the countries with the highest planned amounts per capita for energy efficiency investments in SMEs. Conversely, Portugal and Italy stand out as the countries with the highest planned amounts per capita for energy efficiency investments in Large Enterprises. In all cases, the EU planned amounts per capita contributes proportionally to the planned amounts by each country, but this can range from 36% in case of the Netherlands to 85% in Poland. This variation is linked to different co-financing rates according to the category of regions.

Figure 18. Total ERDF and CF amounts planned, including national co-financing, (in EUR) per capita spent on energy efficiency investments in enterprises – TO: Low Carbon Economy (EU shares represent the EU planned amount versus the total planned amount including national co-financing in the programmes in each country)



Source: JRC elaboration based on latest ESFI database

Figure 19. Total ERDF and CF amounts planned, including national co-financing (in billion EUR) on energy efficiency investments in (a) SMEs and (b) LEs. TO: Low carbon economy (EU shares represent the amount of EU planned amounts versus the total planned amount including national co-financing in the programmes in each country)



Source: JRC elaboration based on latest ESIF database

As shown in Figure 19, the expenditures declared for LEs are lower than those declared for SMEs, even though important national variations exist. ERDF funds are used exclusively by all countries. The six largest regional programmes, shown in Table 9, were found in Germany, Hungary, Belgium and Italy.

Table 10. Largest CF and ERDF regional programmes on residential and public buildings TO: Low Carbon Economy

Country	Program Title	Total planned amount (in EUR)
Germany	Bayern - ERDF	668333334
Hungary	Economic Development and Innovation Programme - HU - ERDF/ESF/YEI	642333552
Belgium	Wallonia - ERDF	461694059
Germany	Nordrhein-Westfalen - ERDF	459580336
Italy	Piemonte - ERDF	445111000
Germany	Thüringen - ERDF	362500000

Source: JRC elaboration based on latest ESFI database

4.2 Snapshot of European local and regional schemes in 2020

An overview of the collected data is shown in Figure 20. In total, information about 170 schemes was collected, with the largest number of schemes located in Italy, followed by Germany, France, Spain and Portugal. The promotion of energy upgrades in buildings depends on the governance structure in each EU country, whereby some countries rely exclusively on the use of financial instruments at national level (e.g. Sweden), while others offer multi-level support with a combination of schemes at national, regional and local levels (e.g. Germany or Italy). Based on our findings, six countries fell in the first group of countries. This group of countries, consisting of Hungary, Greece, Malta, Romania, Slovenia and Sweden, mainly offer financial support for energy renovations through national schemes. In some cases, national schemes may have a

regional dimension, e.g. with funds managed at national level but disbursed at regional level. Whilst the scope of the research focused on how local and regional authorities promoted energy renovations, a few responses provided information on national schemes. This included national schemes in Bulgaria, Cyprus, Spain, Croatia, Ireland, Lithuania and Slovakia. Our analysis has also shown that Bulgaria, Croatia, Czechia, Cyprus, Latvia, Lithuania and Slovakia also rely on national schemes, even though a few local schemes at municipality level have been identified in this group of countries. On the other end of the spectrum, Austria, Belgium, Germany and Italy have a strong regional governance structure, with many regional schemes in place.

Figure 20. Share of public schemes collected in the survey by: (a) governance level (local, regional, and national) and (b) country

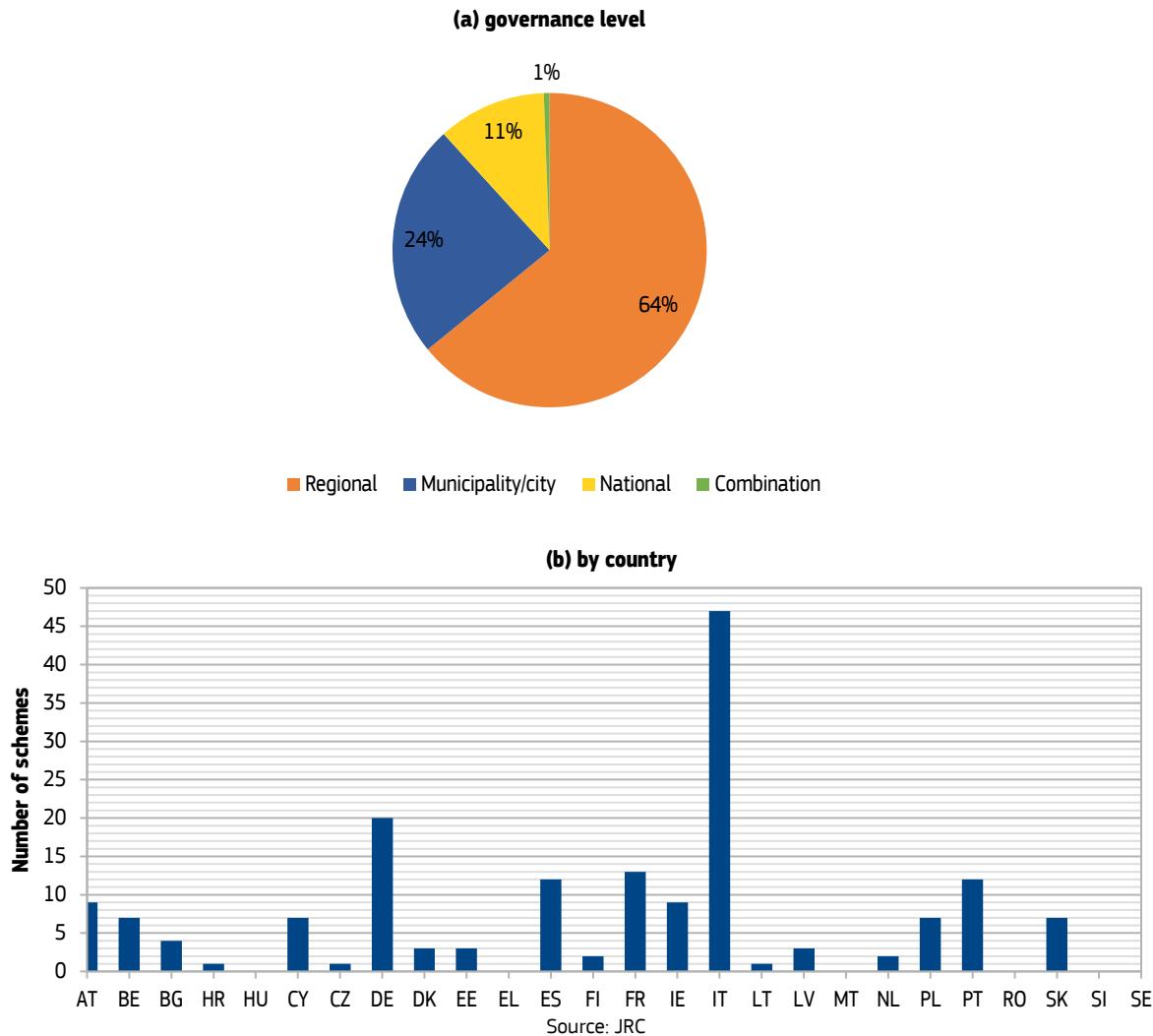
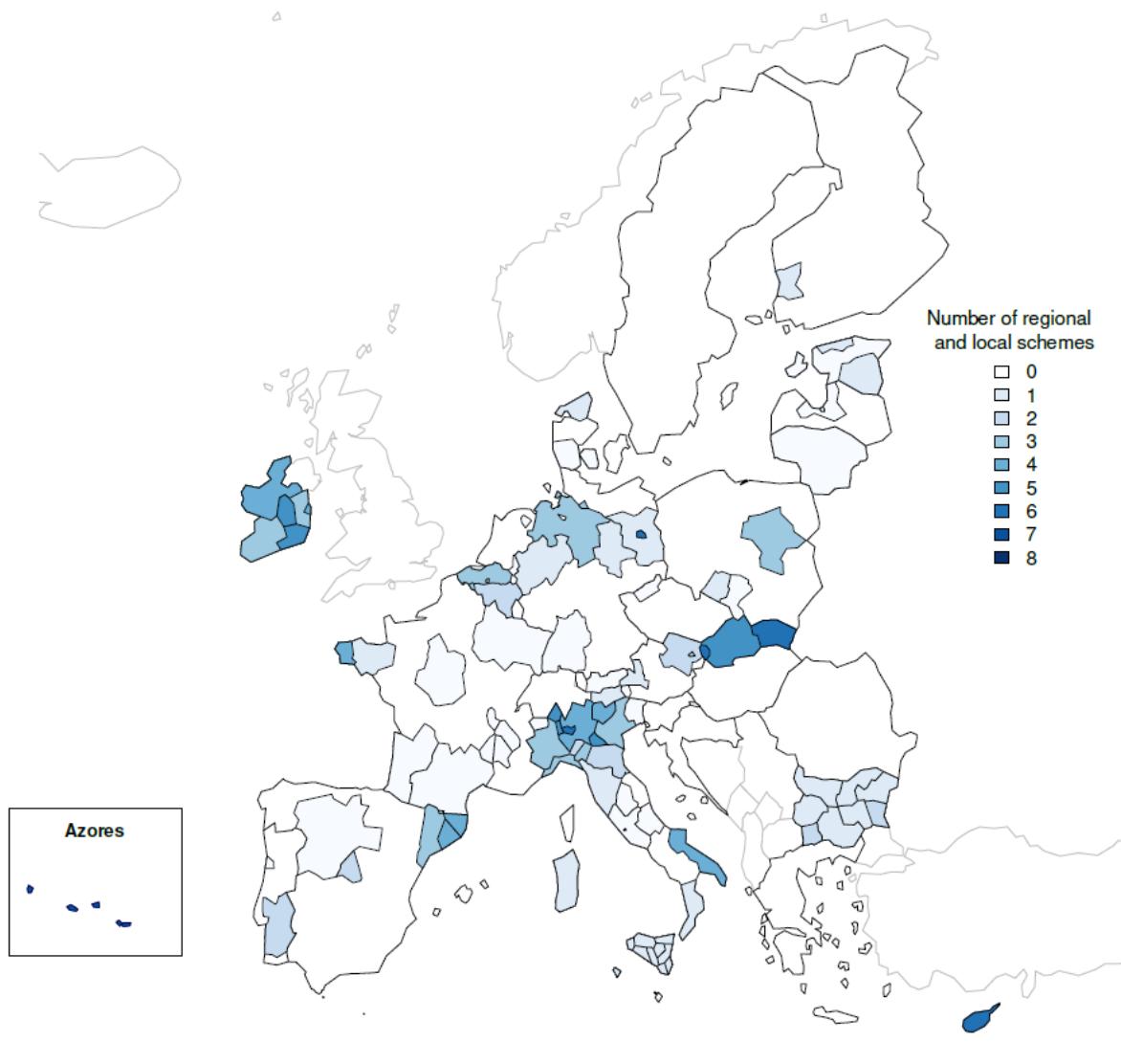


Figure 21 shows the distribution of regional and local schemes across the EU, confirming the presence of regional programmes in countries with strong regional governance structures. As shown in Figure 20, 109 programmes (representing 64% of total) were at regional level, 41 (24%) local level, 19 (11%) at national level and 1 at a hybrid level. The latter concerns a Spanish managed by the regional administration, but directed to municipalities.

Figure 21. Distribution of regional and local schemes across the EU



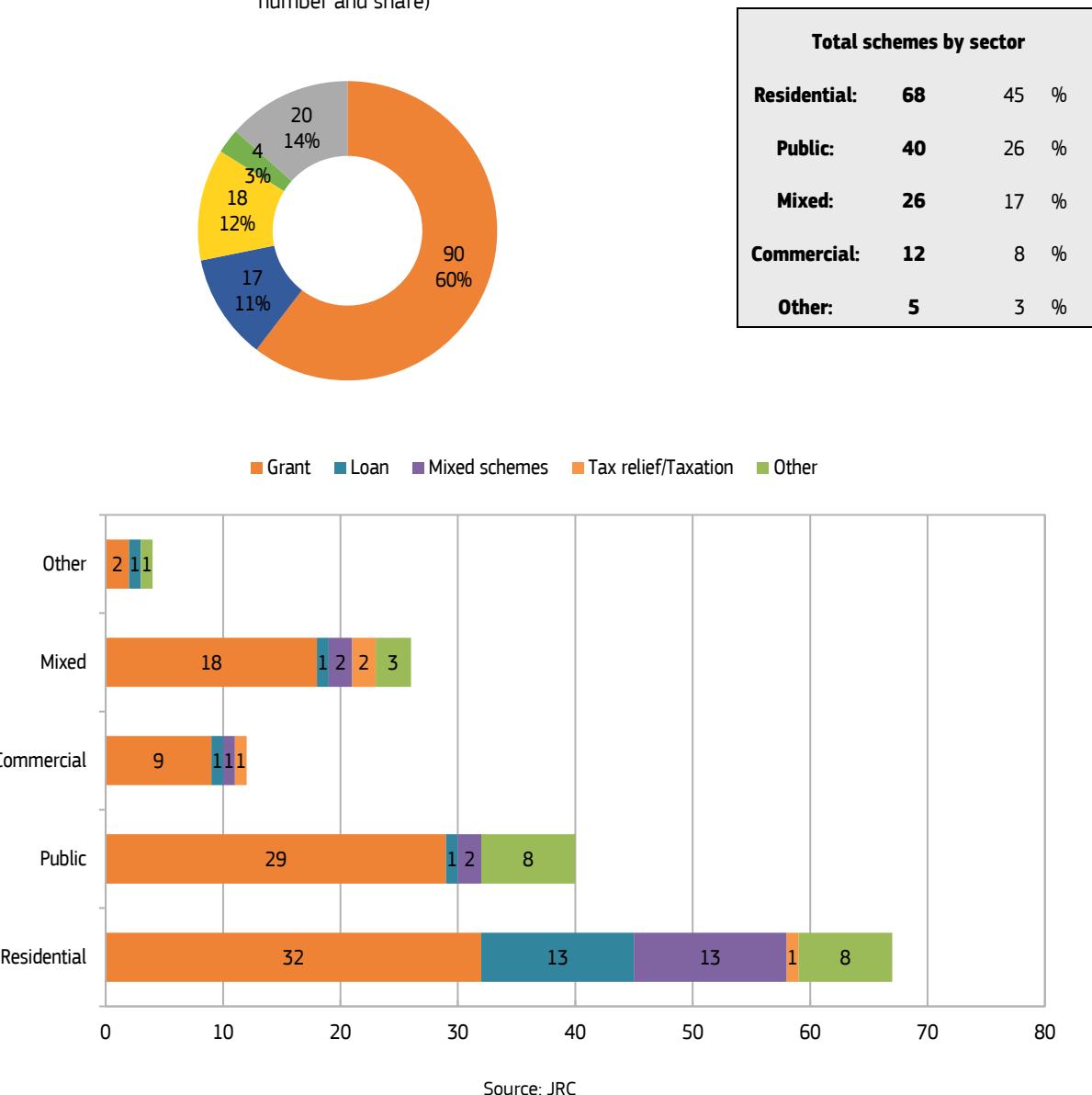
Source: JRC

As in the case of national schemes, public support at local and regional levels is predominantly offered in the form of grants and subsidies (Figure 22). In summary, a total of 90 schemes (or 60% of the total) are offered in the form of grants/subsidies, followed by loans (17 schemes or 11% of total), mixed schemes (18 schemes or 12% of total) and tax incentives (4 schemes or 3% of total). In most cases, mixed schemes combined loans with grants and/or subsidies. Other schemes included reward schemes, technical assistance programmes, general support, and the deployment of specific strategies. Grants and subsidies is a type of instrument deployed in Austrian, Belgian, Bulgarian, Cypriot, German, Spanish, French, Croatian, Irish, Italian, Latvian, Polish, Portuguese and Slovakian regions and/or municipalities. Loans and soft loans are available in Belgian, Cypriot, Danish, Spanish, French, Italian, Dutch, and Polish regions. Mixed schemes were identified in regions in Austria, Belgium, Germany and Italy., while tax incentives are rarer (these are only found in the region of Puglia in Italy).

Just less than a half of all schemes (68 schemes or 45% of total) were designed to support energy upgrades in the residential sector alone and just over a quarter (40 schemes or 26%) in the public sector (Figure 22). Some residential schemes targeted energy efficiency improvements in single family houses only, others focused exclusively on multi family houses and others covered all residential types. Beneficiaries of these schemes ranged from homeowners to private or social housing associations, and from landlords and tenants to public authorities. Public buildings included city halls, educational-purposed buildings, social housing,

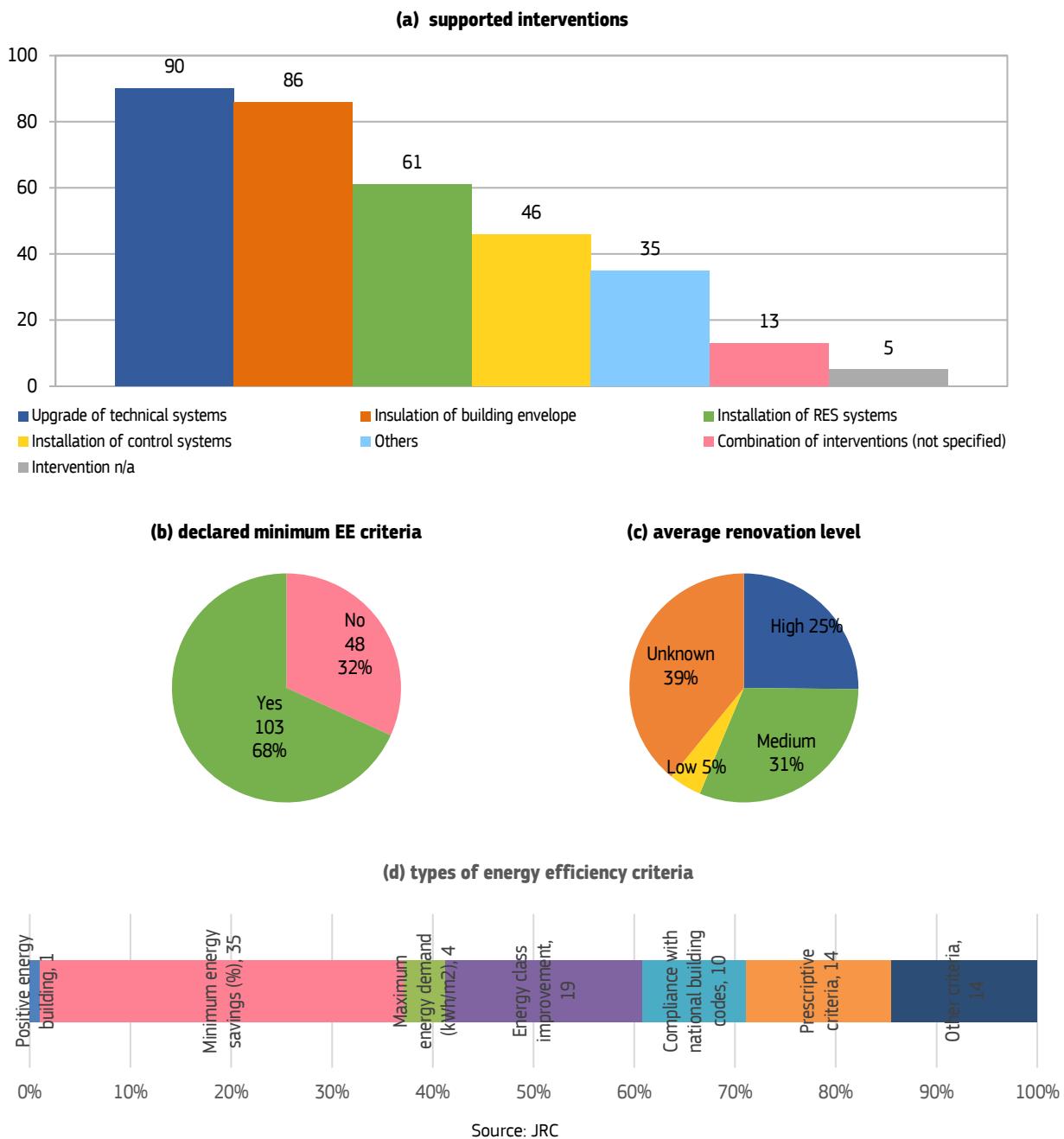
offices and other buildings of non-residential use. Commercial buildings, which were exclusively addressed by 12 schemes (or 8% of the total), included small and medium enterprises, the hospitality sector and other businesses. Mixed schemes, representing 17% of the total, combined residential with commercial buildings, residential with public and other combinations.

Figure 22. Regional and local financial instruments collected in this study by type of policy and building type (total number and share)



Upgrades of technical systems followed by insulation of building envelope and installations of RES systems constituted the most common interventions targeted by the schemes covered in our survey. Often, the schemes offered a combination of different interventions. In particular, over 80% of the schemes promote multiple interventions. Under “others”, financial support was foreseen for services such as technical or legal assistance, energy audits, general repairs/renovation and consultancy fees. Minimum energy efficiency criteria were declared for just over two thirds of the schemes. These criteria are often expressed as a minimum share of energy savings, maximum energy demand in kWh/m², certain level of energy class improvement, compliance with national building codes or prescriptive-based criteria (e.g. heat pump efficiency factor or U values for insulation). The Centre-Val de Loire regional programme in France supports energy efficiency upgrades to positive energy buildings. The target renovation level per building, based on the expert judgment of the respondents, varied from high (25% of all schemes), medium (31%), low (6%), while for 38% it was not possible to make any conclusions.

Figure 23. Distribution of regional and local schemes by (a) type of supported building interventions, (b) minimum EE criteria, (c) average renovation level and (d) types of energy efficiency criteria



As shown in Figure 24, our analysis has shown that the impact of 85 schemes or 56% of all regional and local schemes could not be described in qualitative terms (low, medium or high). Of the remaining 44%, nearly half was deemed to be of high impact (32 schemes or 21% of total), a third of medium impact (22 schemes or 15% of total) and the rest 12 schemes of low impact. In quantitative terms, the impact in terms of achieved energy savings was reported for 66 schemes, GHG reduction for 62 schemes and other benefits for 51 schemes. Other benefits covered RES production in MWh, number of new jobs, economic savings, reduction of social costs caused by climate change, reduction in PM10 pollutants or NOx gases and renovated floor area. In several cases, other benefits were described in qualitative terms, e.g. improved thermal comfort, improved indoor climate, better accessibility to buildings and positive impact on local businesses. The total number of buildings benefiting from the schemes as well as total number of interventions or applications have also been reported in many cases.

Just over half of all regional and local schemes covered in the survey received some form of EU support (Figure 25). Of the total 77 EU-supported schemes, 19 were reported to be of high impact, 11 of medium impact and 7 of low impact. Budgetary resources were disclosed for 74% of all regional and local schemes. These ranged from several thousand to hundreds of millions of euros.

Figure 24. Number of regional and local schemes with reported (a) qualitative impact and (b) quantitative impact

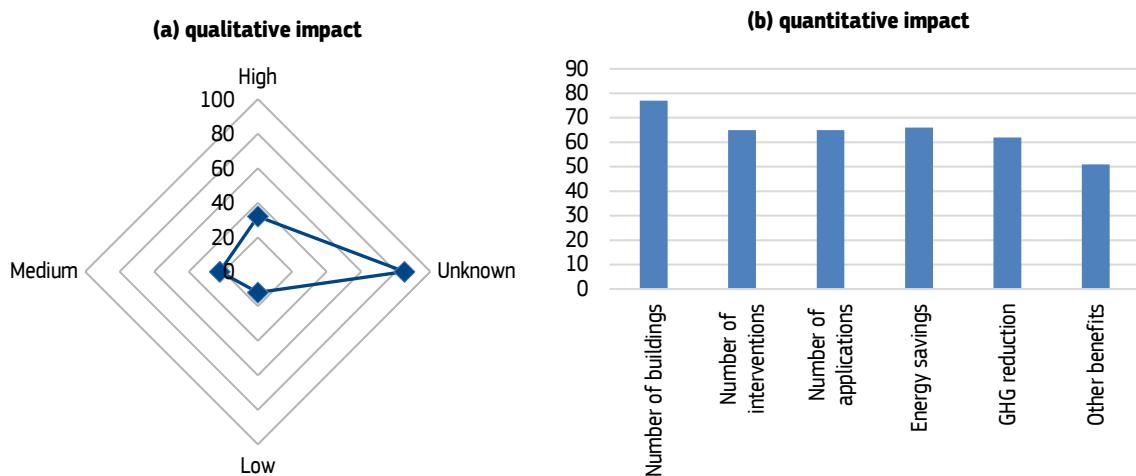
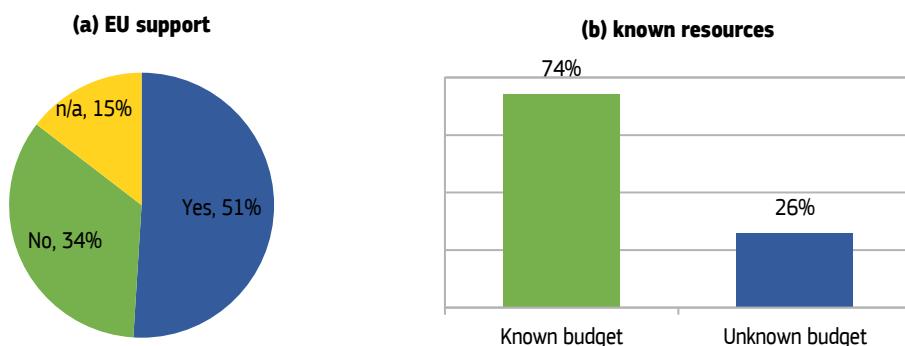


Figure 25. Share of regional and local schemes, which (a) received EU support, (b) have known budgetary resources



Source: JRC

To identify good practices, an analysis based on the criteria listed in Section 3 was conducted. Examples selected as good practices are shown in Table 9-13 and are discussed below. Section 4.2.1 discusses design criteria (ambitious energy upgrades and outreach to hard-to-reach groups), section 4.2.2 implementation criteria (Funding sustainability and continuity, Scalability and/or Replicability) and section 4.2.3 policy outcome criteria (impact, cost effectiveness).

4.2.1 Policy design

In terms of design features, several schemes stand out as in terms of ambition level of energy efficiency upgrades. The exemplary building programme in Centre-Val de Loire region in France provides grant support to positive energy buildings with the aim to demonstrate the benefits of deep energy renovation. The calls under the programme support innovative renovation projects in different sectors, based on technically mature technologies but not yet disseminated in the Center-Val de Loire region, with the aim to disseminate to the public concrete examples of buildings respecting the highest environmental standards. The H2020 SmartEnCity project in Tartu (Estonia) promotes energy class A renovations through the provision of an additional city subsidy by combining available national Kredex grant support with municipal funding. Notably,

the City of Tartu provided extra funding for owners and housing associations that were willing to extend renovations to reach the energy efficiency of a Nearly Zero Energy Building (energy class A or consumption of less than 92 kWh/m² per year) instead of energy class C promoted by the national scheme. Other examples include the modernisation scheme in Hamburg which grants financial support for major energy upgrades of rental apartments in buildings with at least 3 dwellings, for which a building application was made until December 31, 1994 and annual energy demand of below 90 kWh/m² is achieved post-upgrade. The Investment Bank Berlin Brandenburg offers low interest loans from the kfw banking group for Energetic Building Renovation that are line with the kfw standards. Finally, the POR FESR 2014-20 scheme in Piedmont region in Italy and the arté programme in Nouvelle-Aquitaine in France support energy renovations that achieve a minimum 40% reduction in energy consumption. The former targets public buildings designated for public purposes and the latter single-family houses.

Table 11. Examples of regional schemes supporting ambitious energy upgrades

Region	Name of programme	Ambition of promoted energy upgrade
Centre-Val de Loire region (FR)	Batiments démonstrateurs en efficacité énergétique (EN: Exemplary buildings in energy efficiency)	Positive energy buildings
Hamburg (DE)	Modernisierung von Mietwohnungen (EN: Modernisation of rental apartments)	Final energy demand below 90 kWh/m ² per year
Tartu (EE)*	Energy retrofitting of condominiums built in the Soviet era under the H2020 SmartEnCity project	Energy class A in order to receive additional city subsidy
Berlin, Brandenburg (DE)	Investment Bank Berlin Brandenburg (IBB) Energetic Building Renovation	Respective KfW standards (e.g. efficiency house 55)
Piedmont (IT)	POR FESR 2014-2020	Minimum 40% energy consumption reduction
Nouvelle-Aquitaine (FR)	Arté	Minimum 40% energy consumption reduction

Source: JRC

Several schemes are singled out for supporting energy upgrades in hard-to-reach buildings by providing support to vulnerable groups, low-income households or beneficiaries such as social housing associations, condominium multi-owners, tenants, and SMEs. The German State of Lower Saxony supports the promotion of measures that optimise operational resource efficiency and energy management in small and medium-sized enterprises (SMEs). It offers grants up to 70% of the eligible expenditure with maximum allowance of up to EUR 80 000 for resource efficiency measures, up to EUR 200 000 for the establishment of energy efficiency networks and up to EUR 250 000 for individual energy efficiency measures. There are a number of home energy improvements offered as part of this scheme. The Better Energy Warmer Homes scheme in Southern and Eastern Region of Ireland provides grant support for energy upgrades in single family properties built pre 2006, privately owned by low income households. Eligible beneficiaries may be in receipt of fuel allowance as part of the national fuel scheme, job seekers allowance for more than six months with a child under seven, working family payment, one-parent family payment, domiciliary care allowance or carer allowance. For each eligible home, a technical surveyor determines which upgrades can be installed and funded. The energy and technical renovation scheme for housing units in Le Bergot neighbourhood in Brest, France aims to support the most energy-intensive housing occupied by low income households and tenants. All types of collective and individual housing are eligible but priority is given to housing with an energy label E, F and G. There is also a partnership with Energie to support tenants in the use of the new facilities and Cafés Energie were deployed to accompany the rehabilitation work. In the Italian region of Alto Adige, incentives of 70% are applied to interventions carried out in condominiums with at least 5 units and 5 owners exclusively owned by persons and not-for profit entities that do not carry out an economic activity. For enterprise-owned real estate units, incentives amount to a maximum of 50%. In Puglia, support is provided for buildings that must be formally approved and assigned for social housing status, complying with the

provisions of the legislation on Public Residential Construction. The program includes four lines of intervention: 1. New construction of nZEB buildings, recovery and/or extraordinary maintenance of residential buildings publicly subsidized by Municipalities and ARCA, and purchase of unsold housing by ARCA. 2. Interventions of recovery, redevelopment, expansion or new construction of primary and secondary urbanization in the context of public residential buildings by the Municipalities, 3. Recovery and / or extraordinary maintenance of accommodation by private individuals and 4. New construction of social housing by the ARCA and the Municipalities.

Table 12. Examples of regional schemes specifically designed to address hard-to-reach groups

Region	Name of programme	Outreach to hard-to-reach groups
Puglia (IT)	Sustainable and social housing program	Social housing
Alto Adige (IT)	Incentivi provinciali per il risanamento energetico dei condomini	Multi-owner residential buildings
Lower Saxony (DE)	Richtlinie über die Gewährung von Zuwendungen zur Förderung von Maßnahmen zur Optimierung des betrieblichen Ressourcen- und Energiemanagements [EN: Guideline on the granting of support promoting measures to optimize operational resource and energy management]	SMEs
Southern and Eastern Region (IE)	Better Energy Warmer Homes (BEWH)	Homeowners that receive fuel allowance, job seekers allowance or other living cost allowances
Brest (FR)	Rénovation Energétique de l'habitat public	Low income households and tenants

Source: JRC

4.2.2 Policy implementation

Several instruments are also found to offer continuity based on lasting commitment by the government, the use of innovative funding mechanisms (e.g. revolving funds), diversified funding sources (e.g. by blending various sources at different levels of governance) and earmarked funds from taxation of fossil fuel use. For example, the Midlands Retrofit Scheme in Ireland is directly funded by the Carbon Tax. Under the programme, selected council-owned houses in the Midlands region are retrofitted to a Building Energy Rating (BER) of “B2” (or to a cost-optimal level). These retrofits aim to improve the heating and comfort of approximately 750 local authority homes with the allocation of €20 million from Carbon Tax revenues. The retrofit programme focuses in an area where fossil fuel use is highest and communities have been negatively impacted by the closure of peat-fired power stations.

In Ardèche (France), the authorities have a strong will to help the communities of the department to engage with energy efficiency work. Given that the French white certificate scheme is the main national tool for financing energy renovation in France, which is often deemed too complex to use, the Ardèche authorities provide significant territorial grants to their communities by integrating the national subsidies from the white certificate scheme with their grant. A main advantage of combining both subsidies is the opportunity of being involved at the early stage of the energy efficiency project and provision of valuable inputs to improve the quality and ambition of the project. Comprehensive renovation of residential buildings including apartment upgrades is targeted by the regional general renovation scheme in Vienna region in Austria which has been implemented for more than 25 years. While the design features of this scheme have changed over time, the continuity has provided necessary stability to investors. The scheme, which concerns the comprehensive refurbishment of residential buildings with partially upright tenancies, combines loans, annuity grants and building cost subsidies for energy efficiency investments.

The Limburg sustainable home investment scheme provides loans for homeowners and tenants in the Province of Limburg to save energy through energy efficiency improvement, generate sustainable energy and

improve the sustainability of your home. The scheme, which is based on a revolving fund, combines multiple streams of funding from the European Investment bank and own provincial resources. The Sustainable Home incentive scheme amounts to a loan of a minimum of € 2,500 and a maximum of € 25,000 for tenants and a minimum of € 2,500 and a maximum of € 35,000 for home owners.

Table 13. Examples of regional and local schemes with sustainable funding and continuity features

Region	Name of programme	Key features
Limburg (NL)	Stimuleringsregeling Duurzaam thuis (EN: Sustainable Home incentive scheme)	Revolving fund
Vienna (AT)	Sockelsanierung [EN: General renovation]	Implemented since 1985
Grand Est (FR)	Oktave	Multiple streams of funding: EU Project Development Assistance, EIB-ELENA Facility, Regional funds, shareholders and sales
Midlands (IE)	Midlands Retrofit Scheme	Carbon tax
Ardèche department, Auvergne-Rhône-Alpes (FR)	Territorial subsidies coupled with the national white certificate scheme to support the Ardèche local authorities in their energy transition	Combination of market and grant policies

Source: JRC

Oktave, a semi-public company, offers a full service including advice, support and funding for energy efficient renovation projects through its three-pronged action: 1. tailored support from independent energy efficiency advisers on all technical, financial and administrative aspects of a renovation project; 2) access to building professionals with references on their training and experience in the energy efficient renovation sector and 3) third party financing facility in partnership with the Grand Est SACICAP (socially beneficial cooperative companies for home ownership) and banks. A fund has also been set up to provide bridge funding for aid for home owners who cannot pay upfront the substantial costs of renovations. It has used multiple streams of fund for its operations: the EU programme on Mobilising Local Energy Investments – Project Development Assistance (45% of budget), start-up grant by the EIB-ELENA Facility (12% of budget), Grand Est Regional funds (15% of budget), Oktave Shareholders (23% of budget) and sales figures (5% of budget).

We also identified instruments that offer scalability by offering technical assistance, third-party services including ESCOs, or the possibility to combine with other schemes. The Less Energy More OpportuNities programme (LEMON) in the Italian Region of Emilia-Romagna, combines grant, Loan, Energy Performace Contracts for energy efficiency improvements in social housing units. The project has the purpose of providing technical assistance to accelerate the investment in the energy retrofitting of social housing units, integrating different form of funding available, including regional and national loans and incentives, and apply forms of contract to govern the relations between Local Authorities, dwelling owners, tenants, ACERs (Social Housing Companies), ESCOs (Energy Service Companies) and financing institutions as to ensure a return on investment within 15 years from the retrofitting.

Table 14. Examples of regional schemes with scalability potential

Region	Name of programme	Key features
Grand Lyon (FR)	Écoréno'v	Combination of different financial schemes
Olot (ES)	HolaDomus	One-stop shop and provision of technical assistance, customized financing options, and advice on how to apply for grants and subsidies
La Louvière (BE)	BE REEL! C13	Innovative financing scheme via third-party investment
Emilia-Romagna (IT)	LEMON – Less Energy More OpportuNities	Provision of technical assistance, integrating regional and national loans and incentives, and apply forms of contract to govern the relations between Local Authorities, dwelling owners, tenants, ACERs (Social Housing Companies), ESCOs (Energy Service Companies) and financing institutions
Nicosia (CY)	Green Taxation for free Energy Audits in the Hotel Sector (Nicosia Municipality)	
Berlin, Brandenburg (DE)	Investment Bank Berlin Brandenburg (IBB) IBB Condominium financing	Combination of different funding programmes; access to low interest kfW loans

Source: JRC

The Investment Bank Berlin Brandenburg (IBB) scheme enables the combination of 3 funding programmes. The condominium scheme offers loan agreements with individual apartment owners with access to low-interest KfW loans. The BE REEL! C13 scheme in the City of la Louvière in Belgium is set up as an innovative financing scheme via third-party investment, to improve the energy performance of housing, including social housing. It, inter-alia, proposes solutions to finance the renovation works, e.g. via third-party investments or zero interest loans with the aim to accelerate the renovation of the housing stock. The undertaken tasks include a financial pre-feasibility study, the set-up of a third-party investment mechanism, communication campaign on the Quickscan for citizens, creation of a roadmap and identification of a suitable financing method by a third-party investor or by 0% interest rate loans from the Region.

HolaDomus scheme in the Spanish city Olot, implemented by EuroPACE with the participation of Municipality of Olot and GNE Finance, offers One-stop-shop services for residential properties with main focus of energy efficiency improvements. It provides technical assistance, customized financing options and advices on how to apply for grants and subsidies. The minimum eligibility criteria is to include vulnerable groups thanks to the Social Guarantee Fund de-risking scheme.

The Ecoreno'v platform provides guidance to owners and co-owners willing to carry out an energy renovation of their buildings. Subsidies from the Métropole can be combined with other types of financial support: grants for households with little disposable income, Crédit d'Impôt Transition Énergétique (CITE), Certificats d'Économie d'Énergie (CEE), Eco prêt à taux zéro (Eco-PTZ).

4.2.3 Policy outcomes

Some of the most impactful schemes are listed in Table 13. These are schemes that have been reported to be of “high” impact and at the same time were associated with large amount of achieved energy savings and/or GHG emission reduction as well as significant budgetary resources. It is important to highlight that energy savings cannot be directly compared across different schemes as they are based on different methodologies, assumptions, etc. Despite this limitation, the listed schemes in Table 13 stand out in terms of overall impact. These include the THEWOSAN scheme in Vienna (AT), the Polish scheme on energy efficiency and renewables in residential and public infrastructure under the regional operational programme in Silesia Province, the Tuscan energy efficiency scheme for public buildings as well as 2 German schemes; one in Berlin and another one in Saxony-Anhalt.

In terms of cost-effectiveness, it is difficult to make any observations due to important data limitations. Comparisons between schemes need to be treated with caution due to differences in definitions or methodologies. Moreover, the lack of necessary details does not enable the recalculation of energy savings and cost-related data in a harmonised way across all studied schemes.

Table 15. Regional schemes reported to be of high impact and the largest budgetary resources

Region	Name of programme	Impact and budget
Vienna region (AT)	Thermal-energetic renovation of residential building (THEWOSAN)	Overall budget: EUR 100 million
Silesia Province (PL)	4.3 Energy efficiency and renewable energy sources in public and residential infrastructure - under the Regional Operational Programme	Overall budget: EUR 303 million Achieved savings: 93 197 833 kWh/year GHG reduction: 37 691.43 t CO2eq/year
Tuscany region (IT)	Axis 4, Action 4.1.1 Energy efficiency interventions of public buildings Public Energy Announcement	Overall budget: EUR 98 million Achieved savings: 40 000 000 kWh/year GHG reduction: 7 770 t CO2eq/year
Saxony Anhalt (DE)	Stark III	Overall budget: EUR 121 million GHG reduction: 6 000 t CO2/year
Berlin (DE)	Berlin Program for Sustainable Development (BENE) FS2	Overall budget: EUR 114 million Achieved savings: 100 755 173 kWh/year GHG reduction: 28 853 t CO2/year

Source: JRC

5 Actions and programmes at local level

5.1 Good practices of local programmes

Out of all schemes analysed in the report, there are 39 schemes at municipality/city level and one being a combination of schemes at different levels of governance, including the municipal level. The full list of local schemes/programmes analysed is reported in Table 16. Information on these schemes was collected through questionnaires sent to regional/local authorities and agencies and through desk research, mainly looking at good practices identified in the context of some European initiatives, such as the Covenant of Mayors, projects funded under the EU Cohesion policy (mainly ERDF) and Research policy (Horizon 2020 or Intelligent Energy Europe). Although the questionnaire aimed at gathering both qualitative and quantitative information, respondents were generally able to provide qualitative information, while figures on the actual impact of the schemes were often missing as discussed in Section 4. Similar issues were experienced with the desk research. As a consequence, our analysis highlights some common features of different schemes at municipality/city level and seeks to understand what made them successful, without benchmarking them in terms of impact.

Table 16. List of analysed local schemes/programmes

Country	Name of scheme/programme (CITY)
BG	BG16RFOP001-1.001-039 "Implementation of Integrated Plans for Urban Regeneration and Development 2014-2020 / OP Regions in Growth 2014-2020, Priority Axis 1 Sustainable and Integrated Urban Development (39 cities of 1st, 2nd, 3rd hierarchical level); BG16RFOP001-2.003 - Energy efficiency in the peripheral areas- 3 / OPRG 2014-2020, Priority Axis 2 - Support for Energy Efficiency in support centres in the peripheral areas (28 municipalities of 4th hierarchical level); Rural Development Programme 2014 – 2020/BG06RDNP001-7.008 - under sub-measure 7.2 "Reconstruction, repairs, equipment and/or furnishing of municipal buildings where public services are provided in view of improving their energy efficiency": Investments in the creation, improvement or expansion of all types of small scale infrastructure" (Various municipalities in rural areas)
CY	Green Taxation for free Energy Audits in the Hotel Sector (NICOSIA); City Finance Lab - The "Aradippou Oxygen Rewards Card" Mechanism (LARNACA); Soft loan scheme for Photovoltaics and for Energy efficiency (ARADIPPOU)
CZ	Revolving energy saving fund (LITOMERICE)
DE	Investment Bank Berlin Brandenburg (IBB) Energetic Building Renovation (BERLIN); Investment Bank Berlin Brandenburg (IBB) Living room refurbishment (BERLIN); Investment Bank Berlin Brandenburg (IBB) Heating exchange PLUS (BERLIN); Investment Bank Berlin Brandenburg (IBB) "Energy Storage PLUS" (BERLIN); Investment Bank Berlin Brandenburg (IBB) IBB Condominium financing (BERLIN); Energetische Sanierung öffentlicher Gebäude – Modernisierung der Gebäudetechnik (HAMBURG); Wärmeschutz im Gebäudebestand (HAMBURG); Modernisierung von Mietwohnungen (HAMBURG)
DK	Horizon-2020 Calls "Innovate/one-stop-shop" (FREDERIKSHAVN); IEE program call 2013 "Infinite Solutions" (FREDERIKSHAVN); Solar cells and battery solutions in housing associations (SONDERBORG)
EE	Facades in order (TALLINN); Energy retrofitting of 17 condominiums built during the Soviet era (H2020 SmartEnCity project), in line with NZEB standards (TARTU)
ES	Renovem els Barris - Pilot Phase in the Street of Pirineus (SANTA COLOMA DE GRAMENET); Grants to improve energy efficiency in public schools (CASTILE AND LEÓN); HolaDomus (OLÓT)
FR	Tinergie Servie Public de la Performance Energétique de l'habitat (BREST) ; Rénovation Energétique de l'habitat public (BREST) ; Écoréno'v (LYON); MurMur: Retrofitting private buildings to reduce energy consumption (GRENOBLE-ALPES METROPOLE)
IE	LEADER Programme (KILKENNY, CARLOW, WEXFORD); Warmth and Wellbeing Pilot Scheme (DUBLIN)
IT	Parma Progetto Energia - Gran Prestito (PARMA); Bando Efficienza Energetica BE2 (MILAN); LEMON – Less Energy More OpportuNities (EMILIA-ROMAGNA)
LV	Municipal support in preventing danger and performing energy efficiency improvement measures in residential buildings (RIGA); Procedure for granting real estate tax relief (Riga); Revolving fund and low interest and long-term loans (RIGA)
NL	Assen Service Costs model (ASSEN)
PL	Regional Operational Programme for Opolskie Voivodeship, 3.4 Energetic Efficiency in enterprises (OPOLSKIE)
PT	Vila D'Este Social Housing Energy Rehabilitation (VILA NOVA DE GAIA)

Source: JRC

Table 17 groups the 40 schemes based on the type of policy and targeted sector. The majority are grants, followed by mixed schemes (which generally combine a grant component with a loan) and then by other schemes (e.g. revolving funds, one-stop-shops, advisory services). The preferred sector targeted by the local policies analysed is the residential, followed by the public sector.

Table 17. Number of financing schemes at municipality/city level, grouped by type of policy and targeted sector.

Targeted sectors	Grant	Loan	Mixed schemes	Other	Tax relief/ Taxation	Total
Residential	12	3	8	5	1	29
Public	3			2		5
Commercial	1				1	2
Mixed	2		1			3
Other	1					1
Total	19	3	9	7	2	40

Source: JRC

5.1.1 Grants

Grants are generally the preferred instrument by local governments to trigger investments in energy efficiency, as they can be useful where market alone cannot make it due to high upfront investment costs (Economidou et al., 2019).

Grants are used by local authorities to support different types of intervention: they may cover for the costs of energy audits (e.g. the scheme from Opolskie, PL, on energy efficiency in enterprises), of consultancy support services to develop energy renovation projects (e.g. the *Heating exchangePLUS* from Berlin), or, most often, they may actually cover a share of the renovation costs. When grants are used to support the renovation costs, their intensity may vary depending on the type of intervention or, more specifically, on the energy efficiency level to be achieved. For example, within its *Écoréno'v* scheme, the Métropole de Lyon grants EUR 2,000 per unit if the intervention is expected to deliver 35% energy savings and EUR 3,500 per unit for interventions bringing the energy consumption to the level of *bâtiment basse consommation* (BBC) and even provides additional support if bio-based materials are used. A recent scheme launched by Riga to support energy efficiency improvement in residential buildings foresees a maximum co-financing intensity of 50% of the total eligible costs but also sets absolute limits depending on the type of intervention. The intensity of the contribution granted by the city of Milan under its *BE2* scheme varies significantly depending on the type of intervention, from 10% of the eligible costs in case a diesel boiler is replaced by a natural gas boiler, up to 70% when a fossil fuel boiler is substituted by heat pumps, micro-CHP, or solar thermal.

The beneficiaries of grant support are generally homeowners or, in case of multi-apartment buildings, housing or social housing associations.

Grants are generally associated with quite stringent eligibility conditions, for example linked to the type and/or age of the building or to the income of owners or occupants. For example the *MurMur* scheme from Grenoble Alpes Metropole during its first phase of implementation targeted condominiums built between 1945 and 1975 and during a second phase extended its scope to condominiums built before 1945 and after 1975. The *Wärmeschutz im Gebäudebestand* scheme from Hamburg targeted buildings with a permit approved before 1995. Another example is the Warmth and Wellbeing Pilot Scheme from Dublin, targeting vulnerable (0-12, or 55+) persons who are in receipt of social support. The scheme from the City of Milan also includes very specific eligibility requirements: for example, the intervention should concern at least 40% of the building envelope or, in the case of solar thermal, the annual thermal energy produced should exceed 60% of the annual energy demand for the production of domestic hot water.

5.1.2 Mixed schemes

Looking at the schemes classified as mixed scheme, we see a combination of low-interest loans with other products such as interest subsidies (such as in the IBB scheme for energy renovation of buildings), or a combination of different grants, such as in the city of Tartu, or a combination of revolving funds with grants and loans (e.g. Riga, Aradippou).

More in details, the city of Tartu developed a scheme combining the national Kredex grant scheme (which supports renovation to Class C) with a city subsidy aimed to reach Class A.

The city of Riga set up a revolving fund, providing low interest and long-term loans aimed to improve the insulation of building envelope and the upgrade of technical systems for 6,000 buildings built before 1996 with poor insulation. In addition, Riga offered grants to pay the project preparation, to cover partially the investment costs (rewarding the most ambitious projects) and to support low-income households.

The city of Aradippou developed a scheme for the installation of PV on rooftops: during a pilot phase, the city secured EUR 1 million to provide soft loans for the installation of PV on 100 homes. In a second phase, the city aims to receive additional European funds to use in part to reward citizens for taking energy efficiency actions and in part to reduce the interest burden for citizens in case they decide to take up a loan. By doing so, Aradippou aims to encourage citizens to increase the level of investments in energy efficiency.

5.1.3 Loans

Only three (out of 40) local schemes are merely classified as loans. These examples show how local authorities worked in close cooperation with local banks to design suitable products for homeowners willing to improve the energy efficiency of their houses.

In the city of Frederikshavn, the local utility offers private homeowners free energy advice and prepares energy saving proposals. The homeowner then applies for a loan from a bank, which was previously trained by the municipality. Once the financing is in place, a one-stop-shop supervises the implementation of the consultant's proposals and provides quality assurance of completed work. Although this scheme is classified as a loan, it is clear that it is part of a combination of measures aimed at raising awareness, building capacity and providing technical assistance.

The Assen Service Costs model developed by the city of Assen (NL), allows owner-occupied houses to be renovated towards zero-on-the-meter without using personal loans. The model is based on 'object based-funding' instead of personal-based funding, which allows to renovate an apartment complex as a whole, instead of renovating a single unit. The renovation will be funded through the homeowners association, while the provincial authorities provide a guarantee fund, allowing banks to give a loan to the homeowner association. As the homeowner association pays for the renovation of the complex, the fee paid by homeowners to the homeowner association will increase, however this increase in the service costs is balanced by a decrease in energy costs.

Another example of loan is the "Gran Prestito" developed by the city of Parma together with a local bank, consisting of a loan (no lien) up to EUR 50,000 with an interest rate of 2.9%, for a maximum period of 10 years.

5.1.4 Tax relief/Taxation

The two examples of schemes classified as tax relief/taxation come from Nicosia and Riga.

Nicosia's Municipal Council approved an increase of 5% in the hotel accommodation tax per room per night, for the years 2019–2021. The money that will be raised through the increased taxation for the first 3 years, starting in 2019, will be ring-fenced in a green mechanism-fund and used to provide free energy audits to hotels in the Nicosia district, and to fund two awareness-raising events to promote energy efficiency and RES in the hotel sector (LOCAL4GREEN, 2019).

In Riga, apartment blocks, all facades of which have been insulated after its commissioning, or free-standing groups of premises (apartments) located in such a building are entitled to a 90% discount on the real estate tax (Anon., 2020).

5.1.5 Other schemes

The category “other schemes” includes reward schemes, revolving funds, one-stop-shops.

The municipality of Aradippou, Cyprus, seeks to reward its residents who invest in household energy efficiency measures and solar photovoltaic installations: citizens will receive payments on a municipality-issued credit card called the “Oxygen Rewards Card”. The Card will be connected to a municipality fund, which will receive payments from actors purchasing offsets on either the compliance or voluntary carbon markets for the carbon dioxide equivalent (CO₂eq) emission reductions of Aradippou residents.

In 2014, Litomerice set up a revolving energy savings fund, which uses the municipal budget as its main funding source. The money acquired through energy savings measures are redistributed in the following way: 35% allocation to municipal budget, 30% allocation to revolving energy savings fund, 30% allocation to the municipal department that implemented an energy efficiency measure and 5% allocated to a Commission fund. The fund targets energy efficiency measures in Litomerice’s municipal buildings. In the starting year 2014, EUR 69000 were allocated.

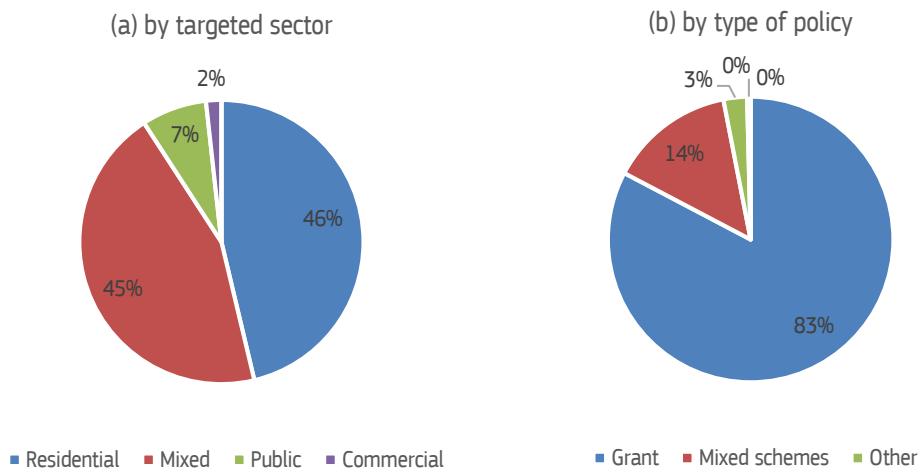
Brest Metropole set up *Tinergie*, a platform aiming to mobilise private owners in the energy renovation of their homes through technical and financial support and by putting them in contact with local economic operators. In particular, the platform integrates a work of animation with local professionals: quality charter, training, structuring of the offer. This service prioritizes various energy efficiency interventions (insulation of building envelope, upgrade of technical systems, Installation of RES systems, heating and ventilation system) on buildings from before 1975.

5.1.6 Impact of the schemes

The data collection on various schemes aimed at gathering also quantitative information in terms of budget, investments, number of buildings subject to renovation, number of interventions, achieved energy savings and emission reduction. Nevertheless, impact data was not report systematically for all the schemes analysed and data, when they are reported, are not always coherent.

Out of 40 schemes, 24 indicated the total budget, which was distributed among targeted sectors and types of policy as shown in Figure 26. The overall budget for 24 schemes was 572.6 million euro, mainly targeting residential buildings or mixed buildings and mostly allocated through grants.

Figure 26. Share of total budget by (a) type of targeted sector and (b) type of policy



Source: JRC

Out of 24 schemes reporting a budget figure, only 13 indicated also the accrued investment: with a total budget of 258.4 million euro, they generated 479.9 accrued investments until now. It has to be noted however that data available on various schemes was generally not coherent, thus limiting the possibility to draw general conclusions, as shown in Table 18. For example, some respondents indicated the overall budget allocated to a certain scheme also for the future but indicated only the investments generated to date. As

some of the schemes are still running, investments are expected to grow further, resulting in a larger leverage for the same budget. Thus, it is not possible to compare various schemes based on the leveraged investments. It can be said however that some schemes, such as Écoréno'v and Mur|Mur in France, or the ones implemented in Denmark under the Innovate/one-stop-shop H2020 project or the Infinite solutions IEE project succeeded to leverage a very high level of investments. These schemes have in common the fact that they targeted a very precise portion of the building stock and were accompanied by a targeted dissemination campaign, through tailored advertising but also providing energy advice to homeowners. In addition, these schemes were developed in close cooperation with local partners, such as banks, consultants or professionals from the construction sector.

Table 18. Selected schemes including figures on total budget and total accrued investments

	Name of scheme/programme	Total budget (million euro)	Total accrued investments (million euro)	Leverage
DK	Horizon-2020 Calls "Innovate/one-stop-shop"	0.22	13.70	62.70
FR	Écoréno'v	44.20	305.00	6.90
DK	IEE program call 2013 "Infinite Solutions"	0.26	1.79	6.90
FR	Mur Mur: Retrofitting private buildings to reduce energy consumption	22.00	61.00	2.77
IT	BE2	22.25	46.50	2.09
ES	Grants to improve energy efficiency in public schools	4.50	6.50	1.44
DE	Energetische Sanierung öffentlicher Gebäude – Modernisierung der Gebäudetechnik	14.80	13.40	0.91
DE	Wärmeschutz im Gebäudebestand	1.99	1.68	0.84
DK	Solar cells and battery solutions in housing associations in Sonderborg, DK	12.00	7.00	0.58
PL	Regional Operational Programme for Opolskie Voivodeship, 3.4 Energetic Efficiency in enterprises	10.00	5.49	0.55
ES	HolaDomus	2.40	1.10	0.46
DE	Modernisierung von Mietwohnungen	18.13	4.85	0.27
BG	BG16RFOP001-2.003 - Energy efficiency in the peripheral areas- 3 / OPRG 2014-2020, Priority Axis 2 - Support for Energy Efficiency in support centres in the peripheral areas	105.70	11.90	0.11

Source: JRC

Concerning energy savings and emission reduction, detailed figures were only available for 10 schemes. However, as said above for the investment figures, those data are not fully comparable as it is not always clear if they refer to actual savings already achieved or to expected savings once the scheme is fully implemented (Table 19). An attempt was made to analyse the cost of MWh saved or ton of CO₂ reduced, but the results are not considered robust due to the large uncertainty on the data.

Table 19. Energy savings and emission reduction associated with the schemes

Country	Name of scheme/programme	Total budget (EUR)	Achieved energy savings GWh/year	Achieved GHG reduction tCO2
BG	BG16RFOP001-1.001-039 "Implementation of Integrated Plans for Urban Regeneration and Development 2014-2020 / OP Regions in Growth 2014-2020, Priority Axis 1 Sustainable and Integrated Urban Development	209 637 240	21.2	22566
IT	LEMON – Less Energy More OpportuNities	15 290 000	5.74	1159
PT	Vila D'Este Social Housing Energy Rehabilitation	15 000 000	10.3	4800
DK	Horizon-2020 Calls "Innovate/one-stop-shop"	218 507	1.68	447
DK	IEE program call 2013 "Infinite Solutions"	259 416	0.7	50
ES	GRANTS TO IMPROVE ENERGY EFFICIENCY IN PUBLIC SCHOOLS	4 500 000	2.7	11732
DE	Energetische Sanierung öffentlicher Gebäude – Modernisierung der Gebäudetechnik	14 800 000	1.5	670
DK	Solar cells and battery solutions in housing associations in Sonderborg, DK	12 000 000	9.2	1150
PL	Regional Operational Programme for Opolskie Voivodeship, 3.4 Energetic Efficiency in enterprises	10 000 000	0.26	n.a.
BG	BG16RFOP001-2.003 - Energy efficiency in the peripheral areas- 3 / OPRG 2014-2020, Priority Axis 2 - Support for Energy Efficiency in support centres in the peripheral areas	105 704 684	62.1	40413

Source: JRC

5.1.7 Horizontal aspects

Based on the analysis of 40 local schemes, in addition to the aspects highlighted above, we have noted that:

- Local authorities, generally lacking own resources for the development and implementation of financing schemes, can often count on European structural or research funds to do so.
- As the level of governance closest to citizens, local authorities have a detailed knowledge of their building stock and of the people living inside, including possible vulnerability or energy poverty situations. This allows them to better prioritise interventions, targeting the most inefficient buildings and/or those occupied by vulnerable people.
- Financing schemes at local level can complement regional and/or national ones, for example providing extra funds for interventions delivering higher savings compared to what regional and/or national schemes require to achieve, thus encouraging deeper renovations.

- Local authorities can also contribute to the successful implementation of national/regional/local financing schemes, by working in close cooperation with stakeholders: they can work with banks to develop suitable products, build capacity of professionals of the construction sector, provide energy advice to homeowners.
- Local financing schemes prove to be particularly effective (e.g. in terms of number of successful applications) when they are accompanied by tailored communication campaigns, aimed at listening to citizens' preferences and concerns and accompanying them in the process.

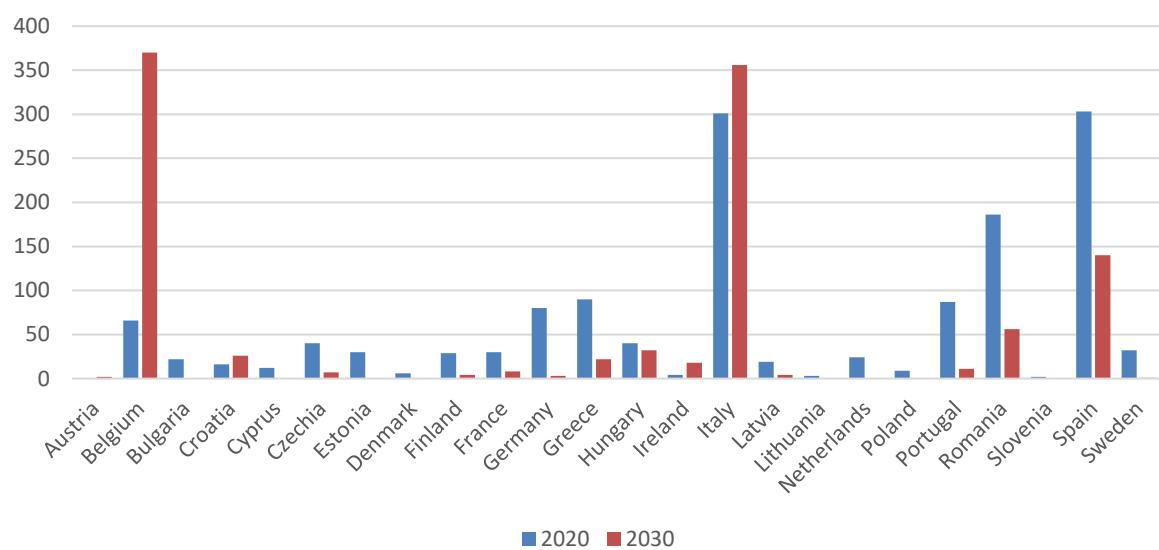
5.2 Covenant of Mayors

This section analyses the distribution of instruments adopted and reported by local authorities for the achievement of the 2030 target within the Covenant of Mayors (CoM) initiative. This initiative was launched to support municipalities committed to meeting the EU Climate and Energy goals by providing a methodology to design and implement strategies to both reduce energy consumption and emissions, and monitor results. For the achievement of the European Climate 2030, local authorities who voluntarily signed the CoM, committed to meet the targets by implementing different types of mitigation actions, with a particular focus on energy efficiency and local renewable energy sources. For the purpose of the report, this section analyses the mitigation policies under the *Financing and provision mode of governance* concentrated on the building sector¹². More particularly, these policies aim to provide services and financial resources for increasing the energy efficiency of buildings and include¹³:

- Third party financing;
- Energy performance contracts;
- Grants, loans and incentives;
- Energy and carbon taxes;
- Public procurement.

The total number of financial instruments reported under the CoM initiative in the framework of 2020 and 2030 targets are depicted in Figure 27. Overall, the number of financial instruments reported to achieve the 2030 target seems to follow the trend of the instruments reported to achieve the 2020 target, with the exception of Belgium and Italy – which increased their commitment to finance energy efficiency, and of Portugal, Romania and Spain – which instead reported to implement less financial instruments.

Figure 27. Total number of financial instruments reported under the CoM initiative in the framework of 2020 and 2030 targets



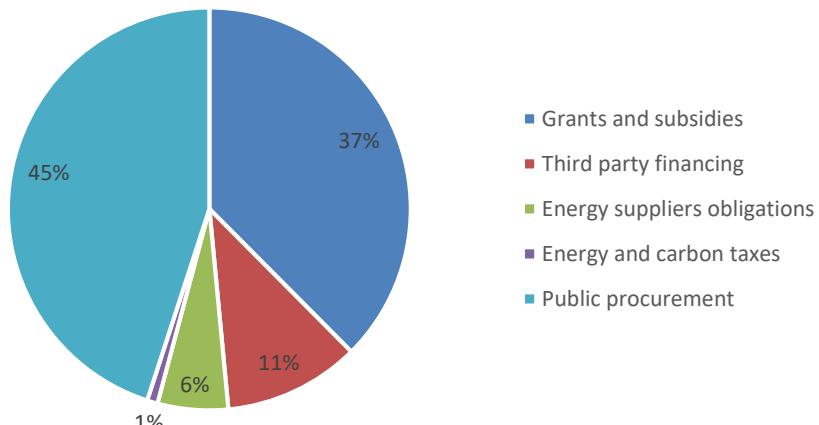
Source: JRC

¹² Valentina, Palermo, et al. "Assessment of climate change mitigation policies in 315 cities in the Covenant of Mayors initiative." *Sustainable Cities and Society* (2020): 102258.

¹³ Bertoldi, Paolo, et al. "How to finance energy renovation of residential buildings: Review of current and emerging financing instruments in the EU." *Wiley Interdisciplinary Reviews: Energy and Environment* (2020): e384.

Deepening the financial instruments to achieve the 2030 target across the EU (Figure 28), *Public Procurement* represents 45% of the adopted financing Instruments, followed by *Grants and Subsidies*, representing the 37%, and by *Third party financing* and *Energy Suppliers Obligations*, representing respectively the 11% and the 6%. *Energy and carbon taxes* represent only the 1%.

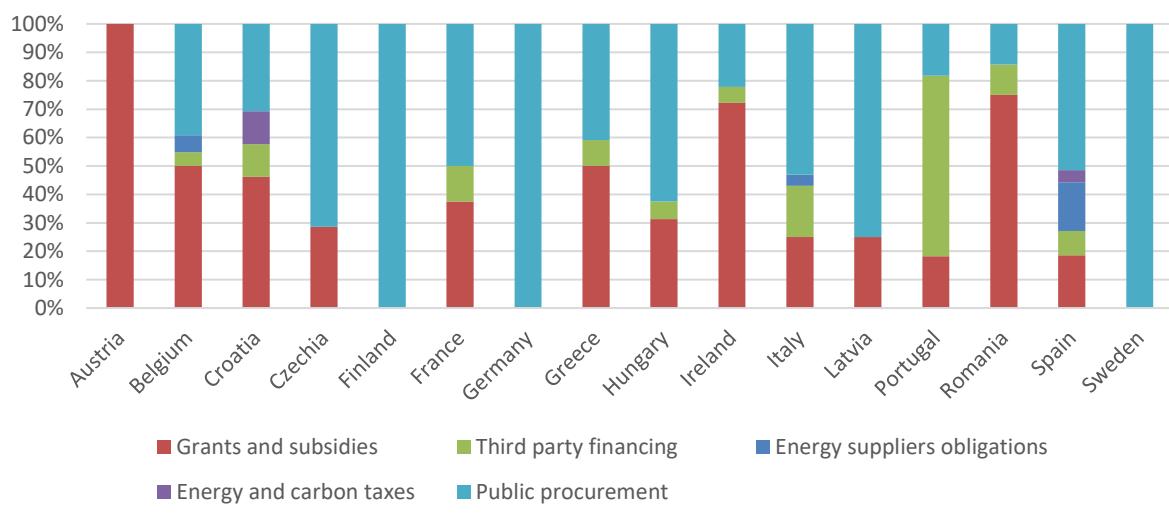
Figure 28. EU 27 overview of financial instruments by type of policy



Source: JRC

There seem to be no variation across countries with regard to the priority given to *Public Procurement*, *Grant and subsidies* and *Third party financing*, confirming the trend at the aggregate level (Figure 29). The only exceptions are represented by Spain and Croatia, which also opt for the *Energy and carbon taxes*.

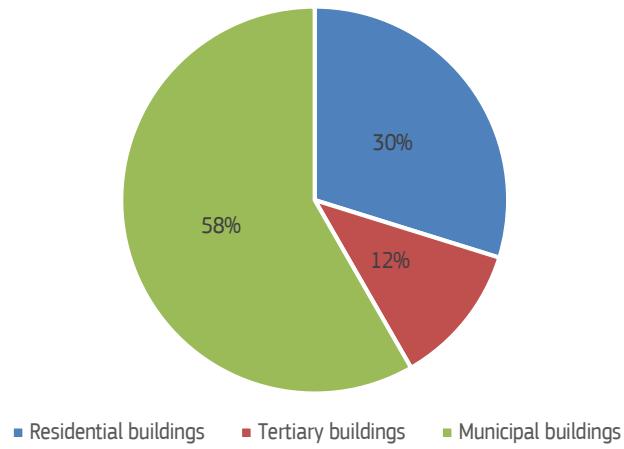
Figure 29. National financial instruments by type of policy



Source: JRC

Deepening the type of building on which the reported financial instruments are concentrated, *Municipal Buildings Procurement* represents 58% of the total share, followed by *Residential Buildings*, representing the 30%, and by *Tertiary Buildings*, representing respectively the 12% (Figure 30).

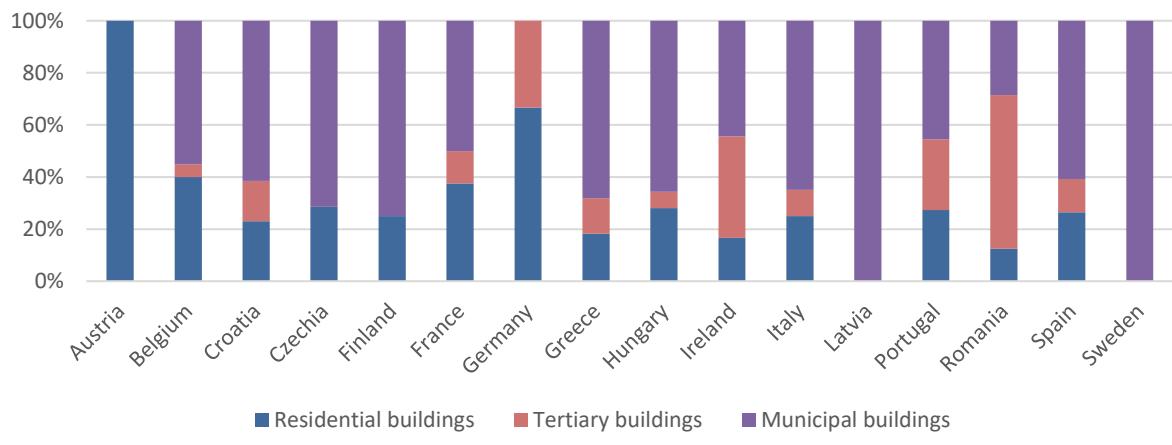
Figure 30. EU 27 financial instruments by type of building



Source: JRC

This aggregate trend is confirmed when looking at each individual country (Figure 31). An exception is for Romania, in which *Tertiary buildings* is the most targeted sector, followed by *Municipal buildings* and *Residential buildings*.

Figure 31. National instruments by type of building



Source: JRC

6 Discussion and conclusions

Our survey collected information on about 170 schemes, with the largest number of schemes located in Italy, followed by Germany, France, Spain and Portugal. The promotion of energy upgrades in buildings largely depended on the governance structure in each country. According to our findings, some EU Member States rely exclusively on the use of financial instruments at national level, while others offer multi-governance level support at national, regional and local levels. In particular, 14 countries were found to have regional financial schemes promoting energy renovations in residential, commercial and public buildings and 14 at local level. Public support at local and regional levels is predominantly offered in the form of grants and subsidies, with a total of 90 schemes offered in the form of grants/subsidies, followed by loans or mixed schemes combining loans with grants and/or subsidies (35 schemes) and tax incentives (4 schemes). Just less than a half of all schemes (68 schemes or 45% of total) were designed to support energy upgrades in the residential sector alone and just over a quarter of them (40 schemes or 26% of total) in the public sector.

Table 20. Examples of good practices of national schemes according to the criteria stipulated in Section 2

MS	Name of scheme/instrument	Key features
Design criterion: Ambition of promoted energy upgrade		
IE	Deep Retrofit Pilot Programme	Min A3 rating
AT	Regional subsidies for energy efficiency in residential buildings	Min 50% heat energy demand reduction
CY	Grant scheme for encouraging use of renewable energy sources and energy	Minimum energy class B or 40 % savings
Design criterion: Outreach to hard-to-reach groups		
BE	Green loans "Le Prêt Vert Bruxellois"	Loans for low income-households in Brussels
LU	Klimabank loans	Interest-free loans for low-income households fully
IE	Better Energy Warmer Homes Scheme	Free energy efficiency upgrades to eligible homes
Implementation criterion: Funding sustainability and continuity		
EE	KredEx Renovation loan for apartment buildings	Revolving mechanism
BG	Residential Energy Efficiency Credit Line	Multiple funding sources
DE	CO2 Building Renovation Programme	KfW's top capital market refinancing conditions
Implementation criterion: Scalability and/or Replicability		
BG	Energy Efficiency and Renewable	Portfolio guarantee for EPCs designed for energy
FR	Zero-rated eco-loan	Possibility to combine with the CITE tax credit
CZ	ENERG Programme	Combination of soft loan with grants for technical
Outcome criterion: Impact		
FR	Energy Transition Tax Credit	800 000 -1 000 000 households
IT	Eco-bonus tax rebate scheme	500 000 interventions
DE	KfW CO2 Building Renovation Programme	400 000 housing units
Outcome criterion: Cost effectiveness		
IE	Deep Retrofit Pilot Programme	Min A3 rating
AT	Regional subsidies for energy efficiency in residential buildings	Min 50% heat energy demand reduction
CY	Grant scheme for encouraging use of renewable energy sources and energy	Minimum energy class B or 40 % savings

Source: JRC

Several schemes are singled out based on a selection of various design, implementation and impact criteria. A few schemes support ambitious energy efficiency upgrades by setting strict energy performance requirements such as a maximum annual energy demand of 90 kWh/m² or the achievement of energy class A after renovation. Others support energy upgrades in hard-to-reach buildings by providing support to vulnerable groups, low-income households or beneficiaries such as social housing associations, condominium multi-owners, tenants, and SMEs. Several instruments offer long-term continuity based on lasting public commitment or are based on more sustainable funding structures e.g. through the use of revolving funds, diversified funding sources and earmarked funds from taxation of fossil fuel use. Technical assistance, third-party services, involvement of ESCOs, one-stop shops or the possibility of combination with other schemes offer scalability potential. Finally, our analysis has also identified schemes generating significant energy savings, reduction of GHG emissions as well as investments.

A comparison between exemplary local/regional schemes (see Section 4.2) and national schemes (Table 20) reveals comparable design and implementation features. This shows that regional and local schemes can retain the same or in certain cases higher ambition levels than national schemes, while maintaining a close link with beneficiaries. In certain cases, a regional scheme may focus on a smaller pool of buildings with the aim to generate a higher share of energy savings per building. Despite this, important differences are noted in terms of their overall impact. Limited budgetary resources at local and regional levels often have a detrimental effect on the overall impact, which is generally found to be lower than those of national schemes. This highlights even further the need of available EU-wide other international resources for regions and local authorities for the uptake of energy efficiency investments. Given that our findings show that many countries underexploit the available Cohesion and ERDF funds, better utilisation of these funds and more active participation in relevant European-wide or other international initiatives is recommended in the future to support regional and local authorities in promoting energy efficiency with their citizens. If accompanied by tailored communication campaigns, these financing schemes can prove to be particularly effective. Finally, regional and local authorities can play a unique role by bringing together a wide range of stakeholders including banks and various professionals in the construction sector. Together with households, local businesses and public authorities, a close stakeholder collaboration facilitated by these bodies can be key to the successful implementation of local, regional and national financing schemes.

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List of abbreviations and definitions

CoM	Covenant of Mayors
COM	Commercial
EPCs	Energy Performance Certificates
ERDF	European Regional Development Fund
ESCOs	Energy Service Companies
GHG	Greenhouse gas emissions
PUB	Public
RES	Residential
SME	Small and Medium Enterprise
LE	Large Enterprise

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Annexes

Austria

Lower Austria

Name of scheme	Wohnbauförderung NÖ (sustainable energy systems subsidies)
Geographical level	Regional
Name of region or city	Lower Austria
Type of policy	Normally grant to loan, but from 2017 to 2019 2.170 heating units (biomass) and 810 heat pumps have been supported by direct subsidies
Targeted sectors	Single family houses
Beneficiaries	Homeowners
Dissemination	Website
Implementation period	2015 - 2019
Implementation body	Lower Austria
Website	www.noel.gv.at
Supported interventions	Installation of RES systems (biomass, heat pumps, solar thermal systems, PVs, etc.)
Average renovation level	Select level
Minimum EE criteria	Quality criteria for efficiency
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources and level of contribution	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown
Average number of systems per year	10980 (2015-2019)

Name of scheme	Wohnbauförderung NÖ Eigenheimsanierung (loan for deep renovation)
Geographical level	Regional
Name of region or city	Lower Austria
Type of policy	Grant to loan (10 years) plus cash: max 10% or EUR 12.000,-
Targeted sectors	Single family houses
Beneficiaries	Owner, tenant
Dissemination	Website
Eligibility conditions	Improvement of building standards documented by building certificate and bills
Implementation period	Annual
Implementation body	Government of lower Austria
Website	https://www.noe.gv.at
Supported interventions	Upgrade of insulation and technical system
Average renovation level	Unknown
Minimum EE criteria	Minimum upgrade 40%
Brief description of scheme	Current building standard is documented by building energy certificate (Energieausweis). This has to be improved at least by 40%. The more improvement - the more cost is accepted for loan. Loan has to last 10 years, 2% grant annually given plus once subsidy of 10% or max. EUR 10.000. max. 600 Euro /m ² and max. 130 m ² accepted for loan. The average grant per household corresponds to 1600 EUR.
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources and level of contribution	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown
Average number of households per year	1890 (2015 -2019)

Name of scheme	Wohnbauförderung NÖ (renovation multi family houses)
Geographical level	Regional
Name of region or city	Lower Austria
Type of policy	Grant to loan (loan at least 10 - 15 years)
Targeted sectors	Multifamily houses
Beneficiaries	Homeowners
Dissemination	Website
Eligibility conditions	improvement of building standard documented by building certificate and bills
Implementation period	Annual
Implementation body	Government of lower Austria
Website	https://www.noe.gv.at
Supported interventions	<i>Upgrade of insulation and technical system</i>
Average renovation level	Select level
Minimum EE criteria	Current building standard has to be improved, minimum HWB to be reached. Documentation by energy building certificate
Brief description of scheme	Maximum accepted cost for renovation: 1.000 Euro/m ² living space, max. 130 m ² living space accepted for loan. Loan has to last 10 (up to 15) years. Base points for building standard, additional points for renewable energy system, solar systems, green roofs, automatic ventilation systems, etc.
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	Unknown
Average annual budget	Average loan per household in 2019: 350 (10 years, 20%), 1.850 (15years, 70%)
Impact achieved so far	
Level of overall impact of scheme	Unknown
Average number of households	2430 (2015-2019)

Salzburg

Name of scheme	Wohnbauförderung Salzburg
Geographical level	Regional
Name of region or city	Salzburg
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	Homeowners, Tenants, Social housing associations
Dissemination	Website
Eligibility conditions	N/A
Implementation period	Up to 18 months
Implementation body	Land Salzburg
Website	www.energieaktiv.at
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems
Average renovation level	Medium
Minimum EE criteria	None
Brief description of scheme	Measures are read out via EPC and the subsidy amount is calculated by assessing the overall energy efficiency
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	Energieförderung Direktzuschuss
Geographical level	Regional
Name of region or city	Salzburg
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	Homeowners, Tenants
Dissemination	Website
Eligibility conditions	N/A
Implementation period	Up to 6 months
Implementation body	Land Salzburg
Website	www.energieaktiv.at
Supported interventions	<i>Upgrade of technical systems and installation of RES systems</i>
Average renovation level	Medium
Minimum EE criteria	None
Brief description of scheme	Application and review of requirements via technical declaration of the professionals
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Tyrol

Name of scheme	Tiroler Wohnbauförderung - Wohnhaussanierung
Geographical level	Regional
Name of region or city	Tyrol
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	Homeowners, Landlords, Tenants
Dissemination	Mostly website, sometimes special campaign
Eligibility conditions	Age depending on activities (e.g. insulation 10 yrs, photovoltaic 0 yrs,...)
Implementation period	Every year, continuing
Implementation body	Local government of Tyrol
Website	www.tirol.gv.at/wohnbau
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems plus measures for the elderly
Average renovation level	Medium
Minimum EE criteria	insulation - heat transition coefficient depending on activity; bonus for whole heating demand value; technical systems - listed in database (efficiency, emissions); bonus for change from fossil systems
Brief description of scheme	Government of Tyrol is granting around 25% (on average - from 15% to 50%) for insulation and changing for renewable systems. There has to be a main residence for people listed - and some technical prerequisites met (technical systems listed or special labels, ...)
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	Unknown
Total accrued investments	28998449.51 (2019)
Average annual investments	30051376.142 (2015-2019)
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	Flats: 12.019 (2019)
Total number of applications	6230 (2019)

Wien

Name of scheme	Sockelsanierung [EN: general renovation]
Geographical level	Regional
Name of region or city	Wien
Type of policy	<i>Land loans, annuity grant and building cost subsidies e.g. for energy efficiency = non-repayable contributions and grants, Annuity grants and State loans</i>
Targeted sectors	Residential (all)
Beneficiaries	<i>Natural or legal persons, house and co-owners</i>
Dissemination	Various types
Eligibility conditions	Eligibility criteria: http://www.wohnfonds.wien.at/articles/nav/116
Implementation period	Since 1985
Implementation body	Wohnfonds-wien, Cit of Vienna, Dpt. MA 50
Website	http://www.wohnfonds.wien.at/article/id/344 , http://www.wohnfonds.wien.at/media/file/Sanierung/erstinf_o_sos.pdf
Supported interventions	<i>Installations/building services, Reduction of energy consumption, Improvement of living comfort and quality, Barrier-free access, Greening, Renewable energy supply, Housing security, Other</i>
Average renovation level	High
Minimum EE criteria	HWB or fGEE Standards according to WWFSG San VO [German: Heizwärmebedarfsanforderung (HWB) oder Gesamtenergieeffizienz (fGEE) gemäß Sanierungsverordnung (2018/aktuell)]
Brief description of scheme	Comprehensive renovation of residential buildings incl. flat improvement. The funding concerns the comprehensive refurbishment of residential buildings with partially upright tenancies. Measures are also being implemented in the dwellings on the housing side (category upgrades, merging of dwellings, barrier-free remodelling with improvements in building services).
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	29,801,600; 43,322,100; 50,741,100; 43, 362,400; 45,827,600 resp. (tot. 213054800)
Impact achieved so far	
Level of overall impact of scheme	High
Total number of interventions/measures	14, 17, 19, 18, 14 resp. (see table "Förderstatistik" below)

Name of scheme	Heat Pump subsidy for new building and refurbishment
Geographical level	Regional
Name of region or city	Wien
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	<i>Home owners, Landlord, Social housing associations</i>
Dissemination	Website
Eligibility conditions	Heat pump Efficiency Factor (ETAs) - the grant amount is determined by the heat pump performance
Implementation period	01.2020 -12.2021
Implementation body	City of Vienna, dep. MA20/MA25
Website	https://www.wien.gv.at/amtshelfer/bauen-wohnen/wohnbautechnik/foerderungen/waermepumpefoerderung.html
Supported interventions	Installation of RES systems
Average renovation level	High
Minimum EE criteria	
Brief description of scheme	<p><i>Luft/Wasser</i> $< 15\text{ kW} = 2.500 \text{ EUR}$ $> 15\text{ kW} = 2.500 + (\text{Nennwärmeleistung} - 15) \times 60 \text{ EUR}$ <i>Sole/Wasser ausgenommen Tiefensonde(n)</i> $< 15\text{ kW} = 4.500 \text{ EUR}$ $> 15 \text{ kW} = 4.500 + (\text{Nennwärmeleistung} - 15) \times 80 \text{ EUR}$</p> <p><i>Sole/Wasser mit Tiefsonde(n) (ab 50m Tiefe)</i> $< 15\text{ kW} = 7.500 \text{ EUR}$ $> 15 \text{ kW} = 7.500 + (\text{Nennwärmeleistung} - 15) \times 600 \text{ EUR}$ <i>Wasser/Wasser</i> $< 15\text{ kW} = 6.000 \text{ EUR}$ $> 15 \text{ kW} = 6.000 + (\text{Nennwärmeleistung} - 15) \times 180 \text{ EUR}$</p>
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	1.800.000.- (2020-2021)
Average annual budget	900.000.- (2019-2021)
Total accrued investments	3.000.000 (2019)
Average annual investments	1.200.000,00
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	~200 (2019)

Name of scheme	Thermisch-energetische Wohnhaussanierung (großvolumig) (THEWOSAN) [EN: Thermal-energetic renovation of residential buildings (large volume)]
Geographical level	Regional
Name of region or city	Wien
Type of policy	Grant (non-repayable grants, building cost subsidies)
Targeted sectors	Residential (all)
Beneficiaries	<i>natural or legal persons the investment house and co-owners' association</i>
Dissemination	Combination of above (specify)
Eligibility conditions	Building cost subsidy in the amount of EUR 30 to EUR 170 per m ² of usable floor space depending on the achieved energy performance indicators, but max. 30% of the total eligible building costs. In addition, a further non-repayable contribution for the use of highly efficient alternative systems can be granted in the amount of EUR 30 per m ² of floor space.
Implementation period	
Implementation body	wohnfonds_wien , City of Vienna - dpt. MA 50
Website	http://www.wohnfonds.wien.at/article/id/492 additional information: http://www.wohnfonds.wien.at/articles/nav/116
Supported interventions	<i>Construction measures for thermal renovation of the entire building envelope such as</i> - the thermal insulation of all external components - the renewal of windows and external doors - measures to eliminate thermal bridges - measures to increase passive-solar heat gains <i>Measures for plant engineering measures (in supplement) such as</i> - conversion or installation of the heating and hot water treatment plant with primary energy-efficient and/or CO ₂ -reduced or renewable energy source - conversion to systems with high energy efficiency - measures to improve efficiency on existing plants
Average renovation level	High
Minimum EE criteria	
Brief description of scheme	Reduction of the building's heating requirements and CO ₂ emissions and reduction of fossil fuel consumption. The subsidy is very attractive as it is a non-repayable grant of up to a maximum of 30 percent of the total construction costs. Obstacles are to be found in the Austrian Tenancy Law Act/MRG (rent increase procedure) or the Austrian Condominium Act/WEG (resolution), and this is sometimes the reason why the subsidy has declined in recent years.
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	25,673,500, 18,938,500; 26,594,200, 12,129,100; 16,924,400 resp. (tot. 100259700)
Impact achieved so far	
Level of overall impact of scheme	High
Total number of interventions/measures	see chart at the right

Belgium

Flanders

Name of scheme	Actieplan EE
Geographical level	Regional
Name of region or city	Flanders
Type of policy	Grant
Targeted sectors	Public (All entities of Flemish Government)
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	Buildings and technical infrastructure owned by the central Flemish Government.
Implementation period	Yearly
Implementation body	Vlaams EnergieBedrijf nv.
Website	https://www.veb.be/actieplan-energie-efficientie
Supported interventions	<i>Building insulation measures, joinery, HVAC-renovation, re-lighting, etc.</i>
Average renovation level	Medium
Minimum EE criteria	Entities should realise 2.5% annual energy reduction (primary energy). Measures to support should have a payback time above 2 years.
Brief description of scheme	The operational budget of the entities of central Flemish Government are being lowered by 2.09 % annually: the same amount then that they have to save via energy demand reduction. These resources are combined with Climate subsidies within Actieplan EE. The same entities can subsequently apply for grants (up to 750.000 EUR) to realise energy efficiency projects. Support can be provided for the technical preparation of individual procurement procedures (via bilateral support and/or existing Framework Agreements with private sector entities (engineering bureaus, installation companies, ESCOs, etc.)
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Total: EUR 7,134,000
	Transfer of the previous year: EUR 664,000
	Flemish Climate Fund (revenues of ETS): EUR 3,850,000
	Own energy budgets of the central government entities: EUR 2,620,000
Total budget	EUR 7,134,000
Average annual budget	EUR 3,000,000 (in 2017-2019)
Total accrued investments	EUR 12,771,000 of public funds (3 years)
Average annual investments	Around EUR 6 million in 2017-2019
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	Unknown
Total number of interventions/measures	92 (2017-2019)
Total number of applications	123 (2017-2019)
Achieved energy savings	317 GWh primary energy (2018-2019)
Achieved GHG reduction	22 500 ton CO2 (2018-2019)

Name of scheme	VEB-ELENA
Geographical level	Regional (Flanders + Brussels capital region) and national
Name of region or city	Flanders and Brussels Capital Region
Type of policy	Technical Assistance for Procurement
Targeted sectors	All buildings owned by entities that have to follow public procurement rules (all level of authorities: local, provincial, intercommunal, regional, federal, education buildings, health care, culture, sport, defence, etc.)
Beneficiaries	Public authorities (Public building owners)
Dissemination	Various dissemination channels are used simultaneously: via our website, via other entities' their communication channels, via events, newsletters, social media, etc.
Eligibility conditions	All measures that result in a kWh reduction or production of RES are eligible.
Implementation period	1/1/19-31/12/2021
Implementation body	Programme Delivery Unit within VEB (Vlaams EnergieBedrijf nv.)
Website	https://www.veb.be/elena
Supported interventions	Technical assistance to prepare public procurement of individual EE and RES measures, streetlight enhancements and energy performance contracts. Both bilateral support and framework contracts to build economies of scale are foreseen.
Average renovation level	Medium
Minimum EE criteria	There is no minimum defined, however the aim is to bring every individual investment project in line with the building owners' real estate strategy. The right level of ambition is first defined, in line with the future use of the building. The long term renovation strategy in Flanders requires at least 1/3rd energy demand to be reduced and 2/3rd via (local) RES; this can be seen as a minimum for deep renovations.
Brief description of scheme	VEB-ELENA is an investment program, supported by EIB-ELENA to mobilise EUR 99 million of investment in energy efficiency and renewable energy production within the built environment in Flanders and Brussels Capital Region. The program aims at removing existing market barriers, increasing the trust of the EPC-model and develop economies of scale for energy efficiency investments. The biggest advantage of the scheme is the operational Program Delivery Unit, a the one-stop-shop for energy efficiency investment in our region where different services can be offered 'off-the-shelf' or be 'tailor-made': o Various energy saving measures via the framework contracts on studies and implementation; o Renewable energy projects via traditional and via supply contracting; o Energetic Masterplans to support the real estate strategies; o Energy Performance Contracts via in-house PDU-members and via the framework contract on EPC-facilitation; o Tailor-made solutions and data-driven strategies via the functionalities of the TERRA database platform development (this is the Flemish database for all publicly owned buildings and their energy consumption).
Budget, funding sources and investments achieved so far	
EU support	Yes, ELENA support of EIB. When we realise a minimum leverage factor of 1:20, we are able to use 3.17 million EUR of grants to support the technical assistance. Note that this is support for the preparation phase of the investment, not the actual assets.
Funding sources	ELENA - EIB (20%) Individual public building owners (80%)
Total budget	3, 17 million EUR over 3 years (1/1/19-31/12/21)
Average annual budget	1 million EUR
Total accrued investments	11 million EUR on 30/06/2020
Average annual investments	By the end of 2021 99 Million EUR should be tendered investments.
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	300 on 30/06/2020 (after 18 months of the program)
Total number of interventions/measures	222 on 30/06/2020 (after 18 months of the program)
Total number of applications	222 on 30/06/2020 (after 18 months of the program)
Achieved energy savings	31 GWh on 30/06/2020 (after 18 months of the program): when the current projects in preparation will be implemented (not yet the case for all of them)
Achieved GHG reduction	1000 ton CO2 eq/year on 30/06/2020 (after 18 months of the program): when the current projects in preparation will be implemented (not yet the case for all of them)
Other benefits or impact	1.5 GWh RES production on 30/06/2020 (after 18 months of the program): when the current projects in preparation will be implemented (not yet the case for all of them)

Brussels

Name of scheme	Energy bonus (Brussels Region)
Geographical level	Regional
Name of region or city	Brussels Region
Type of policy	Grant
Targeted sectors	<i>Residential, Commercial, Public</i>
Implementation period	2004-now
Implementation body	Bruxelles Environnement (Brussels Capital Region Ministry of Environment)
Website	http://www.environnement.brussels/thematiques/energie/primes-et-incitants
Supported interventions	Combination of various EE and RES actions
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	Since 2004, Brussels-Capital Region offers to individuals and businesses a set of 'energy' subsidies for renovation projects or for energy efficient appliances. Specific aid is given for new construction to the passive standard (heating demand <15 kWh/m ² /yr) and refurbishment to very low energy levels (i.e. audits and insulation, ventilation and heating works). Social criteria have been introduced to favour low-income households. The energy subsidy system is financed by a levy on gas and electricity consumers. Thanks to the integrated air-climate-energy plan, the system of 'energy' premiums is reinforced.
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	As of 2004, more than 150 000 subsidies have been offered, equivalent to EUR 120.21 million between 2004 and 2013 (more than EUR 23.15 million per year from 2013).
Impact achieved so far	
Level of overall impact of scheme	Unknown
Name of scheme	Brussels Green loans "Le Prêt Vert Bruxellois" (Brussels Region)
Geographical level	Regional
Name of region or city	Brussels Region
Type of policy	Loan
Targeted sectors	Residential (all)
Beneficiaries	Select beneficiary
Dissemination	Select dissemination type
Eligibility conditions	N/A
Implementation period	2008-
Implementation body	Local government
Website	https://www.credal.be/credit/pretvertbruxellois
Supported interventions	N/A
Average renovation level	N/A
Minimum EE criteria	N/A
Brief description of scheme	The Brussels Green loan scheme is a loan at an interest rate of 0% to 2% offered to households in Brussels with limited income who have difficulty in accessing the traditional banking system to finance investments relating to the rational use of energy. The households participating in the scheme can benefit from information and advice before, during and after the completion of the works. This loan product has been developed through a partnership between the Region, the alternative credit union CREDAL and the Housing Fund. It also includes "budget management guidance" for low income and poorly educated persons.
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	BE REEL! C04
Geographical level	This is an action under the BE REEL! project funded by the EU Life programme. BE REEL! supports, together with its partners, several actions aimed at increasing the renovation rate in Flanders and Wallonia, including trainings for professionals of the construction and related sectors, and awareness raising campaigns for citizens and stakeholders.
Name of region or city	Mouscron (BE)
Type of policy	Other (specify)
Targeted sectors	Residential (all)
Beneficiaries	Public authorities (Ville de Mouscron, Service Energie - Service Municipal de l'Energie)
Dissemination	Training for professionals of the construction sector. Communication campaign for citizens and stakeholders.
Eligibility conditions	
Implementation period	2019 -2024
Implementation body	Ville de Mouscron, Service Energie - Service Municipal de l'Energie
Website	https://be-reel.be/fr/c04-ville-de-mouscron-qualit%C3%A9-de-vie-gr%C3%A2ce-%C3%A0-isolation-et-aux-%C3%A9conomies-d%C3%A9nergie
Supported interventions	Combination of above (specify)
Average renovation level	Unknown
Minimum EE criteria	Towards E90 - tbc
Brief description of scheme	The objective of this action will be to make the citizens of Picardy Wallonia aware of the energy saving potential of their property and to encourage them to renovate while becoming "energy" ambassadors among their peers. The objective will be to renovate 900 properties (180 / year) in the town of Mouscron. This represents a wide range of buildings: as many types of properties as possible will be analysed and renovated under this action C.4: apartment buildings, single-family, semi-detached and terraced houses. Mouscron has over 20,000 properties, 3/4 of which were built before 1981, so the potential for energy savings is significant.
Budget, funding sources and investments achieved so far	
EU support	BE REEL! project funded under the Life programme
Funding sources	Unknown
Total budget	Unknown
Total accrued investments	Expected EUR 36,000,000 over 5 years
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	Expected 900 buildings over 5 years
Achieved energy savings	Expected 38,540 MWh over 5 years
Achieved GHG reduction	Expected 2664 t CO2 over 5 years

Wallonia

Name of scheme	BE REEL! C13
Geographical level	<i>This is an action under the BE REEL! project funded by the EU Life programme. BE REEL! supports, together with its partners, several actions aimed at increasing the renovation rate in Flanders and Wallonia, including trainings for professionals of the construction and related sectors, and awareness raising campaigns for citizens and stakeholders.</i>
Name of region or city	La Louvière
Type of policy	<i>0% loan (from the Walloon region) Third party investment</i>
Targeted sectors	Residential incl. social housing
Beneficiaries	Select beneficiary
Dissemination	Mass Campaign. Communication campaign for citizens on the "Quickscan" (a tool developed by the Walloon Region as part of their renovation strategy)
Eligibility conditions	Not specified - Buildings relatively old and poorly insulated.
Implementation period	2019 -2024
Implementation body	City of La Louvière
Website	https://be-reel.be/fr/c13-mise-en-place-dun-tiers-investissement-pour-financer-la-renovation-energetique-de-logements-de
Supported interventions	Combination of above (specify)
Average renovation level	Select level
Minimum EE criteria	Towards E90 - tbc
Brief description of scheme	<p>The action consists of setting up an innovative financing scheme via third-party investment, to improve the energy performance of housing, including social housing in La Louvière. Aim: at least 150 houses and 50 apartments per year, i.e. a total of 800 dwellings (600 houses and 200 apartments) over 5 years on the territory of La Louvière.</p> <p>The objectives are:</p> <ul style="list-style-type: none"> - to improve the energy performance of relatively old and poorly insulated buildings; - to propose solutions to finance the renovation works, e.g. via third-party investments or zero interest loans; - to accelerate the renovation of the housing stock; - to reduce households energy costs, representing an increasing share of their budget; - to increase comfort and wellbeing of building occupants; - to reduce GHG emissions in the city territory. <p>The tasks are:</p> <ul style="list-style-type: none"> - to carry out a financial pre-feasibility study; - to set-up a third-party investment mechanism; - to launch a communication campaign on the Quickscan for citizens; - to further study certain projects through the creation of a Roadmap; - to search for a financing method (by a third-party investor or by 0% interest rate loans from the Region); - to evaluate the project
Budget, funding sources and investments achieved so far	
EU support	Yes, EU Life programme
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Select level
Total number of buildings	600 SFH 200 apartments
Achieved energy savings	Expected 28000 MWh
Achieved GHG reduction	Expected 1950 tCO2
Other benefits or impact	Between EUR 300 and 1500 saved per household every year

Bulgaria

Name of scheme/programme	Rural Development Programme 2014 – 2020 BG06RDP001-7.008 - under sub-measure 7.2 "Reconstruction, repairs, equipment and/or furnishing of municipal buildings where public services are provided in view of improving their energy efficiency": Investments in the creation, improvement or expansion of all types of small scale infrastructure" of measure 7 "Main services and renewal of villages in the rural areas" of the Rural Development Programme (RDP) 2014-2020. The procedure concerns . The total amount of funding that can be granted under the procedure for all approved project proposals totals BGN 19 558 000,00.
Geographical level	Municipality/city
Name of region or city	List of rural areas (see below)
Type of policy	Grant
Targeted sectors	Municipal buildings where social services are provided, with the purpose of improving their energy efficiency; Municipal buildings - that provide administrative services to satisfy the public needs - used by the municipal administration for regular managing activities.
Beneficiaries	1. municipalities from the rural areas of the Republic of Bulgaria according to Annex № 1 of the Guidelines for application; 2. municipalities of Velingrad, Gotse Delchev, Karlovo, Lom, Panagyurishte and Petrich, with the exception of the construction boundaries of the administrative center of these municipalities; 3. municipalities of Sandanski, Razlog, Karnobat, Malko Tarnovo, Pomorie, Provadia, Belogradchik, Kozloduy, Mezdra, Sevlievo, General Toshevo, Krumovgrad, Troyan, Berkovitsa, Peshtera, Cherven Bryag, Nikopol, Tறrakan, Nova Zagora, Devin, Zlatograd, Samokov , Popovo, Ivaylovgrad, Svilengrad, Novi Pazar, Elhovo, except for the construction boundaries of the administrative center of these municipalities.
Dissemination	Website - https://eumis2020.government.bg https://www.d fz.bg/bg/prsr-2014-2020/merki-podpomagane-ISUN/ - press release placed on the State Fund Agriculture ; Training organised by State Fund Agriculture
Eligibility conditions	-
Implementation period	1. The approved project shall be implemented within 36 months from the date of signing the administrative contract with State Fund Agriculture – Paying Agency (SFA-PA). 2. The deadline under item 1 shall be no later than September 15, 2023.
Implementation body	State Fund Agriculture - Paying Agency
Website	https://www.d fz.bg/bg/prsr-2014-2020/merki-podpomagane-ISUN/
Supported interventions	Reconstruction, repairs, equipment and/or furnishing of municipal buildings where public services are provided in view of improving their energy efficiency
Average renovation level	Unknown
Minimum EE criteria	A requirement has been set for an energy efficiency audit accompanied by a valid certificate for energy performance of the building in operation, prepared pursuant to Art. 48 of the Energy Efficiency Act and Ordinance № Е-РД-04-1 of 2016 on energy efficiency audit, certification and assessment of energy savings of buildings (State Gazette, issue 10 of 2016) and implementation of all measures according to this audit.
Brief description of scheme	The provision of focused support aims to promote social inclusion, poverty reduction and economic development in rural areas. The expected results of the support are the creation and renovation of small-scale public and technical infrastructure, which in turn will lead to the creation of an optimal living environment for rural areas, environmental protection, accessibility and development of the economy and education. The maximum amount of the total eligible costs under measure 7 "Basic services and renewal of villages in rural areas" of the Rural Development Programme (RDP) 2014 - 2020 for the whole period of implementation of the RDP 2014 - 2020 for a candidate municipality is the Bulgarian leva equivalent of 10 000 000 EUR. The maximum amount of the total costs for one project may not exceed the Bulgarian leva equivalent of EUR 500 000. Guidelines do not provide for a minimum grant amount for a specific project. The maximum amount of grant is 100% of the total amount of the project's eligible costs.
Budget, funding sources and investments achieved so far	
EU support	European agricultural fund for rural development
Funding sources	European agricultural fund for rural development: EUR 6987942,45 (85%) National co-financing: EUR 1137572,03 (15%)
Total budget	8.125.514,48 EUR (contracted 43 projects in total)
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of applications	Submitted 51 energy efficiency related municipal proposals; Approved and contracted 43 projects

Name of scheme/programme	BG16RFOP001-2.003 - Energy efficiency in the peripheral areas- 3 / OPRG 2014-2020, Priority Axis 2 - Support for Energy Efficiency in support centres in the peripheral areas
Geographical level	Municipality/city
Name of region or city	1. Botevgrad 05815 2. Berkovitsa 03928 3. Belogradchik 03616 4. General Toshevo 14711 5. Devin 20465 6. Elhovo 27382 7. Zlatograd 31111 8. Ivaylovgrad 32024 9. Krumovgrad 39970 10. Kozloduy 37798 11. Karnobat 36525 12. Mezdra 47714 13. Malko Tarnovo 46663 14. Nikopol 51723 15. Novi pazar 52009 16. Nova Zagora 51809 17. Pomorie 57491 18. Popovo 57649 19. Peshtera 56277 20. Provadiya 58503 21. Razlog 61813 22. Sandanski 65334 23. Svilengrad 65677 24. Samokov 65231 25. Sevlievo 65927 26. Troyan 73198 27. Tutschakan 73496 28. Cherven bryag 80501.
Type of policy	Grant
Targeted sectors	Multi-family residential buildings and public buildings of educational, cultural and social infrastructure, 1. orphanages, 2. adults with disabilities' homes, 3. care homes, as well as children homes of medical and social care are NOT eligible for financing
Beneficiaries	1. 28 municipalities of small 4th level cities of the national polycentric system, in compliance with section 1.1.1. and in compliance with the National Spatial Development Concept for the period 2013–2025 2. Home owners - for single -family residential buildings; 3. Housing associations - for multi-family residential buildings; 4. State institutions - for administrative buildings of the state administration; The organisations (from item 2 to 4, participate in cooperation with the beneficiary municipality, via contractual relations).
Dissemination	Websites: https://eumis2020.government.bg http://www.bgregio.eu/shemi/158/oprr.aspx Press release published on the OPRG's website; Info day held on 30 January 2020.
Eligibility conditions	Solid buildings, designed before 26.04.1999; Residential buildings, built in similar way to industrial construction method
Implementation period	OP Regions in growth 2014-2020 ; the implementation period of a specific project should not exceed 30 months
Implementation body	Ministry of Regional Development and Public Works
Website	https://www.mrrb.bg/bg/infrastruktura-i-programmi/operativna-programa-regioni-v-rastej/ https://www.eufunds.bg/bg/oprd/node/5319 http://www.bgregio.eu/shemi/158/oprr.aspx http://www.bgregio.eu/media/files/Kandidatstvane/Aktualni%20sxemi/2014-2020/os%202/2020_03_31_Nasoki_za_kandidatstvane_2%2031.03.20.pdf
Supported interventions	Insulation of building envelope; Replacement of local heating resources/boilers including switching to more energy efficient and eco-friendly fuel; Installation of control systems; Set up of systems for using renewable energy - for the needs of the building - if it is technically feasible and economically viable; Repair or replacement of the heating installation, cooling and ventilation of the building for energy efficiency improvement;
Average renovation level	Unknown
Minimum EE criteria	The activities are aimed at achieving least class C of energy consumption categories (acc. to Ordinance 7/2004 related to energy efficiency in buildings) in the housing sector and in the public buildings that are administrative buildings of the state and municipal administration as well as municipal buildings of educational, cultural and social infrastructure. The activities are also aimed at reducing the final energy consumption and energy costs as well as CO2 emissions.
Brief description of scheme	BG16RFOP001-2.003 - Energy efficiency in the peripheral areas- 3 grant procedure is implemented under Priority Axis 2 of OPRG 2014-2020 as a selection of project proposals procedure in compliance with Art.2 (1) of Council of Ministers Act 162/05.07.16. The main purpose is to raise energy efficiency in public infrastructure and in the housing sector in the beneficiary municipalities. Eligible candidates are the 28 municipalities of small 4th level cities of the national polycentric system. This procedure is directed to the implementation of Investment priority 4c: Supporting energy efficiency smart energy management and renewable energy use in public infrastructure, including in public buildings as well as in the residential sector.
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF: 85% National co-financing: 15%
Total budget	206 740 392,11 BGN = 105 704 684,00 EUR (2014-2020)
Average annual budget	BG16RFOP001-2.001: Contracted total grant amount of EUR 79,18 mln; BG16RFOP001-2.002: Contracted total budget EUR 16 839 943,95; BG16RFOP001-2.003: Approved total grant amount EUR 14 804 850,02
Total accrued investments	11 923 488 EUR (2018)
Impact achieved so far	

Level of overall impact of scheme	Unknown
Total number of buildings	<p>Within the two schemes BG16RFOP001-2.001 (170 actions) and BG16RFOP001-2.002 (32 actions) respectively:</p> <ul style="list-style-type: none"> • it is expected that 683 sites, incl. 482 multi-family residential buildings (inhabited by 5907 households) as well as 201 public buildings of the municipal administration, will improve their energy efficiency. • The renovation of 276 residential buildings (3818 households) has been completed, in 28 small and medium-sized cities.
Total number of applications	<p>BG16RFOP001-2.001 : Approved and contracted 170 projects; contracted amount EUR 79,18 mln BG16RFOP001-2.002 : Approved and contracted 32 projects, contracted budget: EUR16 839 943,95 BG16RFOP001-2.003: Submitted 71 project proposals; Approved 20 proposals, total budget EUR 14 804 850,02</p>
Achieved energy savings	<p>5 140 348 kWh/year (2018) 56 963 073,00 kWh/year (2023)</p>
Achieved GHG reduction	40 413,00 tCO2 eq (2023)

Name of scheme/programme	BG16RFOP001-1.001-039 "Implementation of Integrated Plans for Urban Regeneration and Development 2014-2020 / OP Regions in Growth 2014-2020, Priority Axis 1 Sustainable and Integrated Urban Development
Geographical level	Municipality/city
Name of region or city	1st level BG16RFOP001- 1.0016 : Sofia Municipality; 2nd level BG16RFOP001- 1.002 : municipalities of Varna, Plovdiv, Burgas, Ruse, Stara Zagora, Pleven, Blagoevgrad, Veliko Tarnovo, Vidin; 3rd level BG16RFOP001- 1.011 : municipalities of Dobrich, Haskovo, Pazardzhik, Shumen, Sliven, Gabrovo, Yambol, Pernik, Vratsa, Lovech, Kardzhali, Smolyan, Razgrad, Kazanlak, Asenovgrad, Montana, Gorna Oryahovitsa, Gotse Delchev, Dupnitsa, Kyustendil, Silistra, Dimitrovgrad, Targovishte, Lom, Petrich, Svishtov, Velingrad, Karlovo, Panagyurishte
Type of policy	Grant PLUS financial instruments for operations that generate net revenue after completion, according to art. 61 of the Regulation (EU) № 1303/2013 of the European Parliament and of the Council of 17 December 2013.
Targeted sectors	Administrative buildings, state owned or municipality owned; Multi-family residential buildings
Beneficiaries	39 cities of 1st, 2nd, 3rd hierarchical level in accordance with the National Concept of Spatial Development of Bulgaria.
Dissemination	- Website: https://eumis2020.government.bg http://www.bgregio.eu/shemi/117/oprr--oprd--mrr.aspx - Press release published on the OPRG's website; - The OPRG's Managing Authority organised an Info Day, 1 April 2019; - Info Day, dedicated to BG16RFOP001-1.001-039 "Implementation of Integrated Plans for Urban Regeneration and Development 2014-2020, was held in Sofia on 28 July 2015.
Eligibility conditions	- multi family residential buildings - solid buildings designed before 26 April 1999 in the 39 cities of 1st, 2nd, 3rd hierarchical level, that are not in the scope of the National programme of energy efficiency in multy family houses; - multy family residential buildings with up to 35 separate housing/residential units, built in similar way to industrial construction method
Implementation period	OP Regions in growth 2014-2020 ; the implementation period of a specific project should not exceed 30 months
Implementation body	Ministry of Regional Development and Public Works
Website	http://www.bgregio.eu/shemi/117/oprr--oprd--mrr.aspx http://bgregio.eu/media/files/Kandidatstvane/Aktualni%20sxemi/2014-2020%D0%BE%D1%81%201/%D0%9D%D0%B1%D1%81%D0%BE%D0%BA%D0%B8%20%D0%9F%D0%9E%2020%D0%BF%D0%BE%20%D0%9E%D0%9F%D0%A0%D0%A0%202014-2020_dec2018.pdf http://bgregio.eu/media/news/2018/Programme_2014BG16RFOP001_5_2_bg_05.12.2018.pdf
Supported interventions	<ul style="list-style-type: none"> • Replacement of windows, doors, etc.; • Insulation of the building envelope; • Replacement of local heating resources/boilers including switching to more energy efficient and eco-friendly fuel; • Setting up systems for using renewable energy (for the needs of the building), if it is technically feasible and economically viable • Repair or replacement of the heating installation, cooling and ventilation of the building for energy efficiency improvement.
Average renovation level	Unknown
Minimum EE criteria	<ul style="list-style-type: none"> • Investments will be made, only if the energy efficiency audit has proved that the application of energy efficiency measures will lead to the least required category C of energy consumption. • The energy efficiency audit should be accompanied by a valid certificate for energy performance of the building in operation, prepared in virtue of Art.48 of the Energy Efficiency Act.
Brief description of scheme	The procedure is implemented under Priority axis 1 "Sustainable and Integrated Urban Development" of OPRD 2014-2020. The aim of the procedure is to support the implementation of the Integrated Plans for Urban Regeneration and Development which target the sustainable and lasting overcoming of economic, natural and social problems in the 39 cities of 1st, 2nd and 3rd hierarchical level in accordance with the National Concept for Spatial Development 2013-2025. A specific aim of the procedure is to improve energy efficiency and to reach at least C category of energy consumption in the housing sector, in the students' dormitories and in the administrative buildings of state and municipal administration.
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF National co-financing
Total budget	estimated amount of EUR 209 637 240, of which EUR 178 191 654 (ERDF) and EUR 31 445 586 (national co-financing) in 2014-2020

Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of applications	Submitted 39 energy efficiency- related municipal project proposals; Approved 39
Achieved energy savings	15 732 281 kWh/year in public buildings (target in year 2018) 21 202 404,0 kWh/year (target in 2023)
Achieved GHG reduction	22 566,28 t/CO ₂ eq. (2023)

Name of scheme/programme	Energy Efficiency of Multi-Family Residential Buildings National Programme
Geographical level	<i>National measure's implementation supported by the city.</i>
Name of region or city	Burgas (BG)
Type of policy	Grant
Targeted sectors	Multi-family houses
Beneficiaries	Housing associations
Dissemination	Mass Campaign
Eligibility conditions	All multi-family buildings, designed before April, 26, 1999 three or more floored buildings with six or more separate sites with residential use.
Implementation period	2015 - 2016
Website	https://municipalpower.org/articles/the-smart-transformation-of-a-black-sea-metropolis
Supported interventions	Combination of various EE measures including structural reconstruction /strengthening/ overhaul; Renovation of common areas
Average renovation level	Medium
Minimum EE criteria	
Brief description of scheme	By the end of 2019, over 300 such buildings in Burgas had been retrofitted with the support of EU funds, its own budget and Bulgaria's Energy Efficiency of Multi-Family Residential Buildings National Programme. To apply, households living in flats or apartment blocks had to create an association of owners, with at least 70% of the residents in favour of retrofitting. A representative from each association acted as a point of contact with the municipality, enabling dialogue between the municipality and residents about their preferences and any concerns.
Budget, funding sources and investments achieved so far	
EU support	Yes
Funding sources	National
	Municipality/city
	EU
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	over 300 buildings

Cyprus

Nicosia

Name of scheme	Green Taxation for free Energy Audits in the Hotel Sector (Nicosia Municipality)
Geographical level	Municipality/city
Name of region or city	Nicosia
Type of policy	Taxation
Targeted sectors	Hotel Sector
Beneficiaries	Municipalities and Local Authorities
Dissemination	Website/press release
Eligibility conditions	N/A
Implementation period	2019-2021
Implementation body	Municipalities / Local Authorities
Website	https://local4green.interreg-med.eu/
Supported interventions	Nicosia Municipality has approved green taxation under Hotel Accommodation Tax and the revenues collected will compensate all the Hotels in its region, with free Energy Audits as well as the funding of two awareness events each year.
Average renovation level	Medium
Minimum EE criteria	N/A
Brief description of scheme	An innovative three-way approach was identified and promoted in Nicosia Municipality for a successful application of green taxation. The first step was the analysis of the current legislative framework and how the green fees can be adapted inside a taxation category without any Law revision. The second step was the selection of a suitable taxation category for the municipality, where the green fiscal policies will be approved and applied in their territory. Finally, the third step was the establishment of a green -revolving fund from which the revenues of the green taxation will finance sustainable actions supporting RES and energy efficiency measures. Nicosia's Municipal Council and Mayor officially approved on 10th January 2019 the green taxation and the increase of 5% in the hotel accommodation tax per room per night, for the years 2019-2021. According to the design of this fiscal policy, the EUR21,000.00 that will be raised through the increased taxation for the first 3 years, beginning in 2019, will be ring-fenced in a green mechanism-fund and used to provide free energy audits to hotels in the Nicosia district.
Budget, funding sources and investments achieved so far	
EU support	European Regional Development fund, LOCAL4GREEN project-Interreg MED
Funding sources	European Regional Development Fund Cyprus Energy Agency
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Larnaca

Name of scheme	City Finance Lab - The "Aradippou Oxygen Rewards Card" Mechanism
Geographical level	Municipality/city
Name of region or city	Larnaca (Aradippou)
Type of policy	Reward scheme
Targeted sectors	Residential (all)
Beneficiaries	Homeowners/Municipality
Dissemination	Website/press release
Eligibility conditions	N/A
Implementation period	2020- City Finance Lab
Implementation body	Municipality of Aradippou
Website	https://www.climate-kic.org/success-stories/city-finance-lab/
Supported interventions	Energy efficiency measures/installation of PVs
Average renovation level	Medium
Minimum EE criteria	N/A
Brief description of scheme	The municipality of Aradippou, Cyprus, seeks to reward its residents who invest in household energy efficiency (EE) measures and solar photovoltaic (PV) installations and thereby contribute to the achievement of the European Union (EU)'s 2030 climate and energy targets. Under the scheme envisaged by the Aradippou municipality, citizens will be rewarded for their EE and solar PV investments by receiving payments on a municipality-issued credit card called the "Oxygen Rewards Card." The Oxygen Rewards Card will be connected to a municipality fund, which will receive payments from actors purchasing offsets on either the compliance or voluntary carbon markets for the carbon dioxide equivalent (CO2e) emission reductions of Aradippou residents.
Budget, funding sources and investments achieved so far	
EU support	Yes (City Finance Lab - EIT Climate -KIC)
Funding sources	N/A
Total budget	N/A
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	Soft loan scheme for Photovoltaics and for Energy efficiency
Geographical level	Municipality/city
Name of region or city	Aradippou (CY), 19228 inhabitants
Type of policy	<i>Pilot phase: soft loan Second phase: municipal grant combined with a soft loan</i>
Targeted sectors	Residential (all)
Beneficiaries	Homeowners
Dissemination	<i>One-stop shop, with various public and commercial partners: a dedicated space inside the city hall, where citizens are guided throughout every step of their energy efficiency renovation process.</i>
Eligibility conditions	Any homeowners can apply to use this financial tool. Applications are evaluated based on the level of the positive impact their projects will have on the environment.
Implementation period	Pilot phase: 2014 Second phase (Horizon 2020 INNOVATE project):
Implementation body	Municipality of Aradippou in cooperation with the Cooperative Central Bank and the Larnaka Chamber of Commerce and Industry
Website	http://www.aradippou.org.cy/index.php/en/euro-programs/aradippou-eu-smart-city https://www.pattodeisindaci.eu/component/attachments/?task=download&id=748:covenant_case-study_aradippou_2019
Supported interventions	<i>Pilot phase: PV Second phase: energy efficiency</i>
Average renovation level	Medium
Minimum EE criteria	
Brief description of scheme	During the pilot phase : EUR1 million secured for the soft loan for the installation of PV on 100 homes During the second phase : Aradippou will apply in order to receive additional funding from European Investment funds that will exceed 50 million EUR. The grant is split into a part which rewards citizens for taking energy efficiency actions and a part which reduces the interest burden for citizens in case they decide to take up a loan. This means that the grant for each household is increased when a loan is received, encouraging larger investments in energy efficiency. By creating this structure, Aradippou aims to encourage citizens to increase the level of investments in energy efficiency.

Budget, funding sources and investments achieved so far	
EU support	Yes (Horizon 2020)
Funding sources	EU
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	Initially 50 houses, with the aim to reach 3000 houses in the next 5-10 years
Other benefits or impact	Encourage local economic recovery

Croatia

Name of scheme/programme	Energy refurbishment of public buildings - Operational programme competitiveness and cohesion 2014 - 2020
Geographical level	<i>National scheme where local and regional authorities or their institutions can apply to the open calls for proposals.</i>
Name of region or city	Medjimurje County
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Press release
Eligibility conditions	Buildings owned by public authorities or their institutions
Implementation period	Operational programme 2014-2020
Implementation body	National ministries – MRDEUF; MCPP; EPEEF
Website	https://strukturifondovi.hr/en/eu-fondovi/esi-fondovi-2014-2020/op-konkurentnost-i-kohezija/
Supported interventions	<i>Comprehensive energy refurbishment</i>
Average renovation level	Medium
Minimum EE criteria	50% of savings in Qh,nd
Brief description of scheme	Medjimurje County (or their institutions) as a regional authority applied to the national scheme/open calls for proposals and signed contracts for comprehensive energy renovation of public buildings (schools, hospital, home for elderly, etc.). There were three calls so far, and fourth is announced for autumn 2020. Medjimurje County has to ensure funding for own contribution which is approximately 15-20% of total investment.
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF
Funding sources	EU - 60%
	National ministry - MRDEUF - 25%
	Regional - rest of investment + unforeseen works - 15%
Total budget	15 million EUR in 2014-2020
Average annual budget	3-5 million EUR as of 2017
Total accrued investments	5 million EUR in 2017-2019
Average annual investments	3-5 million EUR as of 2017
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	25 (2014-2020)
Total number of interventions/measures	N/A - not all projects started by the time
Total number of applications	19 (2014-2020)
Achieved energy savings	> 50 % of Qh,nd per year
Achieved GHG reduction	N/A - not all projects started by the time
Other benefits or impact	Better conditions and higher standard

* Only national schemes

Czech Republic

Name of scheme	Revolving energy saving fund
Geographical level	Municipality/city
Name of region or city	Litomerice, CZ
Type of policy	Revolving fund
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	Municipal buildings
Implementation period	2014 onwards
Implementation body	Municipality of Litomerice Agency
Website	https://www.publenef-toolbox.eu/cases/revolving-energy-saving-fund-litomerice-czech-republic
Supported interventions	EE in municipal buildings
Average renovation level	Unknown
Minimum EE criteria	Not specified
Brief description of scheme	Litomerice has set up in 2014 a revolving energy savings fund, which uses the municipal budget as its main funding source. The money acquired through energy savings measures are redistributed in the following way: 35% allocation to municipal budget, 30% allocation to revolving energy savings fund, 30% allocation to the municipal department that implemented an energy efficiency measure and 5% allocated to a Commission fund. The fund targets energy efficiency measures in Litomerice's municipal buildings. In the starting year 2014, EUR 69000 were allocated.
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	EUR 69000 (year 2014)
Impact achieved so far	
Level of overall impact of scheme	Unknown

Denmark

Frederikshavn Municipality

Name of scheme	IEE program call 2013 "Infinite Solutions"
Geographical level	<i>Municipal boundary as geography,know-how sharing with the rest of Denmark/project partners</i>
Name of region or city	Frederikshavn Municipality
Type of policy	Loan (local banks offer soft retrofit-loan)
Targeted sectors	Single family houses
Beneficiaries	<i>Private home owners, suppliers, SMVs, artisans, financing sector</i>
Dissemination	<i>Cross-cutting communication with the target group and stakeholders, comprehensive training sessions for stakeholders</i>
Eligibility conditions	Private homes, especially houses, built before 1980
Implementation period	2020-2030
Implementation body	Frederikshavn Municipality
Website	https://energy-cities.eu/publication/infinite-solutions-guidebook/
Supported interventions	Multiple EE and RES measures
Average renovation level	Medium
Minimum EE criteria	25%
Brief description of scheme	The local utility offers private homeowners free energy advice and prepares energy saving and improvement proposals. Homeowner can then turn to their bank to borrow money or use their own savings to implement the advisor's proposal. The municipality trained all local banks on how to meet the requests of private homeowners. Once the financing is in place, the homeowner introduces the one-stop-shop organization for the implementation of the consultant's proposals and quality assurance of completed work.
Budget, funding sources and investments achieved so far	
EU support	Yes, through two European project collaboration projects called Infinite Solutions
Funding sources	IEE program call 2013 Infinite Solutions (75%)
Total budget	259.416 (2014-2017)
Average annual budget	85000
Total accrued investments	1793340 (2014-2017)
Average annual investments	512380 (2014-2017)
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	16000
Total number of interventions/measures	During the project period 1453 households have received free af charge home-energy advisory
Total number of applications	During the project period 936 households renovated their homes
Achieved energy savings	700000 kWh (2014-2017)
Achieved GHG reduction	49,97 ton (2014-2017)
Other benefits or impact	20 man power-years new jobs, increased comfort in retrofitted houses, increased property value, reduction of CO2-emissions from households

Name of scheme	Horizon-2020 Calls "Innovate/one-stop-shop"
Geographical level	Municipality
Name of region or city	Frederikshavn Municipality
Type of policy	Development of one-stop-shop financing models
Targeted sectors	Single family houses and condominiums
Beneficiaries	Private home owners, suppliers (SMVs), artisans, financing sector
Dissemination	Meetings, cross-cutting communication with the target group and stakeholders. Use of media
Eligibility conditions	All private homes and condominiums
Implementation period	2017-2020
Implementation body	Frederikshavn municipality, together with the One-Stop-Shop organization
Website	https://energy-cities.eu/project/innovate-2/
Supported interventions	Deep energy retrofit-package delivered by One-Stop-Shop organisation
Average renovation level	Low
Minimum EE criteria	min. 35% and above
Brief description of scheme	holistic and comprehensive energy renovations of private homes and condominiums in term of an "all in one" package offer (one-stop-shop) from start to finish.
Budget, funding sources and investments achieved so far	
EU support	Yes, Horizon-2020 Calls "Innovate"
Total budget	218.507 (2017-2020)
Average annual budget	68250
Total accrued investments	13,700,000 (2017-2020)
Impact achieved so far	
Level of overall impact of scheme	Low
Total number of buildings	16000 (2017-2019)
Total number of interventions/measures	1178 deep and ordinary home-energy retrofits in 2017-2019
Total number of applications	1921 received free home and condominium energy advisory in 2017-2019
Achieved energy savings	1680230 KWh
Achieved GHG reduction	447 ton (2017-2019)
Other benefits or impact	152 man power-years new jobs, increased comfort in retrofitted houses and condominiums, increased property value, reduction of CO2-emissions from households, created new method of collaboration (One-stop-shop)

Sønderborg

Name of scheme	Solar cells and battery solutions in housing associations in Sønderborg, DK
Geographical level	Municipality/city
Name of region or city	Sønderborg City in South Denmark Region, DK
Type of policy	Grant
Targeted sectors	Multi-family houses
Beneficiaries	Social housing associations
Dissemination	Tailored Advertising (by post, phone, mail)
Eligibility conditions	The scheme includes three social housing associations in Sønderborg City, primarily existing multi-storey buildings with apartments between 60 and 100 m ² .
Implementation period	June 15, 2016 to January 31, 2021
Implementation body	Three social housing associations: SAB, SOBO and B42 in Sønderborg, DK
Website	www.smartencity.eu and www.projectzero.dk
Supported interventions	Installation of RES systems
Average renovation level	Medium
Minimum EE criteria	Minimum 50 % of the electricity consumption in the buildings will be covered by solar PV systems in combination with battery solutions.
Brief description of scheme	The main part of the energy renovation project includes solar PV systems and batteries. However external insulation of facades, new windows, new heating automatic and new ventilation systems in few housing blocks are also included in the scheme. The project includes 20 housing departments with 110 buildings and 2.200 apartments.
Budget, funding sources and investments achieved so far	
EU support	The program receives financial EU support from Horizon 2020 project "SmartEnCity", GA no. 691883
Funding sources	EU Horizon 2020: 25% Housing associations - own funding: 10% Credit institutions and banks: 65%
Total budget	12 mio. Euro (2016-2022)
Average annual budget	2 mio. Euro
Total accrued investments	7 mio. Euro (2016-2022)
Average annual investments	1,75 mio. Euro
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	52 buildings so far (2016 - 2020)
Total number of interventions/measures	14 measures so far (2016 - 2020)
Total number of applications	7 applications so far (2016 - 2020)
Achieved energy savings	9.200 MWh (7.200 MWh heat + 2.000 MWh el) (2016 - 2019)
Achieved GHG reduction	1.150 tons GHG so far (2016 - 2019)
Other benefits or impact	Improved indoor climate

Estonia

Name of scheme	Facades in order (<i>Fassaadid korda</i>)
Geographical level	Municipality/city
Name of region or city	Tallinn
Type of policy	Grant
Targeted sectors	Apartment buildings
Beneficiaries	Housing associations
Dissemination	Website
Eligibility conditions	Renovation allowance is available for apartment associations which have reconstructed the apartment building's facade, roof or utility systems to improve energy efficiency and filed a notification of use or obtained a permit for use following the completion of work. The allowance application must be submitted within six months of the date of filing the notification of use or issuing the permit of use. The grant is available for apartment buildings built and taken into use before 1993.
Implementation period	Since 2010
Implementation body	Tallinn City Property Department
Website	https://www.tallinn.ee/eng/Teenus-Facade-Makeover-or-renovation-allowance
Supported interventions	Reconstruction of the building's facade, roof or utility systems to improve energy efficiency.
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	The purpose of renovation allowance is to support the renovation of apartment buildings and improve their energy efficiency and appearance. The maximum rate of allowance is 10% of the cost of construction work but not more than 20,000 EUR per apartment building. A further allowance of 3,000 EUR is available for creating a mural (supergraphics) in the course of renovation provided that the design has been approved by the Urban Design Committee of Tallinn City Government.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Tallinn Municipality: 100%
Total budget	220 000 EUR (2020)
Average annual budget	200 000 EUR
Impact achieved so far	
Level of overall impact	Low
Total number of buildings	210 (2010-2020)

Name of scheme	Energy retrofitting of 17 condominiums built during the Soviet era (H2020 SmartEnCity project), in line with NZEB standards.
Geographical level	Municipality/city
Name of region or city	Tartu (EE)
Type of policy	Combination of national support (Kredex grants) and municipal funding.
Targeted sectors	Multi-family houses (condominiums built during the Soviet era)
Beneficiaries	Housing associations
Dissemination	The city organised an information campaign. The Tartu Regional Energy Agency (TREA) set up a project website and a mailing list for residents and housing associations to provide information and support throughout the whole process. The TREA also organized regular information meetings and workshops for the residents and study visits to similar construction sites.
Eligibility conditions	To receive KredEx financial support, the concerned buildings must have been built and entered use before 1993. The support can be combined with other financial aids such as loans or subsidies. In order to obtain this financial support, renovation plans must aim at an improvement to energy class C, which equals 122kWh/m ² per year or less. In addition, the City of Tartu provided extra funding for owners and housing associations that were willing to extend renovations to reach the energy efficiency of a Nearly Zero Energy Building (energy class A, 92 kWh/m ² per year or less). The city provided a subsidy of 102 EUR/m ² . To benefit from this subsidy, apartment associations had to agree on having artwork added to the outside of their buildings. The additional costs incurred by this were also partly carried by the city. The budget was 8 000EUR per building, with the city providing 5 000EUR from the city budget and the housing associations covering the remaining costs.
Implementation period	2016 - 2021 (expected)
Implementation body	City of Tartu
Website	https://energy-cities.eu/wp-content/uploads/2020/04/Tartu-ACE-retrofitting_2019_en.pdf https://link.springer.com/chapter/10.1007/978-3-030-23392-1_17
Supported interventions	Combination of different EE and RES actions
Average renovation level	High

Minimum EE criteria	Class C (for the national support scheme) Class A (to receive also the city subsidy)
Brief description of scheme	<p>In general, apartment associations in Estonia can benefit from financial support from KredEx, a foundation set up by the Estonian Ministry of Economic Affairs and Communications to provide financing solutions for companies as well as private individuals searching to renovate their dwellings to improve energy efficiency. In Tartu, the housing associations received a KredEx support of 40% of the total renovation costs.</p> <p>In addition, the City of Tartu provided extra funding for owners and housing associations that were willing to extend renovations to reach the energy efficiency of a Nearly Zero Energy Building (energy class A, 92 kWh/m² per year or less). The city provided a subsidy of 102 EUR/m². To benefit from this subsidy, apartment associations had to agree on having artwork added to the outside of their buildings. The city's cooperation with residents can be divided in five phases:</p> <ol style="list-style-type: none"> 1. First, the city launched an information campaign to create a positive image of the retrofitting project and to encourage housing associations to participate. 2. Then, city officials and TREA experts joined housing association meetings to provide information about the project and collect feedback and suggestions from residents. 3. Technical consultants supported the housing associations to develop renovation plans in cooperation with contracted engineering companies. 4. The City of Tartu, TREA, the Institute of Baltic Studies (IBS) and the University of Tartu organized events and workshops to inform residents of ways to reduce their energy consumption in everyday life. This included instructions explaining the smart technologies that were installed in the renovated buildings. 5. After the retrofitting, TREA monitors the buildings' energy performance and provides feedback to its residents on costs and consumption patterns. <p>The city also supported the housing associations with any problems or concerns regarding KredEx, the national financing foundation, by reaching out to them on behalf of the residents.</p>
Budget, funding sources and investments achieved so far	
EU support	Cohesion fund - Horizon 2020 - SmartEnCity Project. The KredEx reconstruction grants receive financing from the European Union Cohesion Fund for the period 2015–2020. The city of Tartu supports retrofitting the pilot area buildings by a total of 3,978,000 EUR (i.e. 102 EUR/m ²) from EU H2020 funds.
Funding sources	National (Kredex): 40% Municipality/city: 25% Apartment owner associations (probably through bank loans): 35%
Total budget	EUR 3,978,000 (City contribution from H2020)
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	17 buildings were retrofitted, which equals 32 072 m ² .
Total number of interventions/measures	619 apartments
Other benefits or impact	About 1500 citizens were impacted.

Name of scheme	KredEx renovation grant for residential multi-apartment buildings
Geographical level	3 regional zones depending of the real-estate market
Name of region or city	The grant amounts to 30% of the total cost of the renovation works in Tallinn and Tartu, and to 40% of the total cost of the renovation works in rural municipalities neighbouring Tallinn and Tartu, where the market value of the property in the year preceding the submission of the application was higher than 500 EUR/m ² according to the transaction database of the Land Board, as well as in Elva, Haapsalu, Keila, Kohila, Kuressaare, Maardu, Otepää, Paikuse, Pärnu, Rakvere, Rapla, Sauga, Uuemõisa and Viljandi. In the rest of Estonia, the grant amounts to 50% of the total cost of the renovation works.
Type of policy	Grant (subsidy rate of 30-50% of full renovation cost)
Targeted sectors	Multi-apartment buildings
Beneficiaries	Housing associations
Dissemination	Web page supported with local consultation and expert network
Eligibility conditions	For buildings prior 1993. Housing association/community or municipal ownership is required.
Implementation period	2020
Implementation body	KredEx
Website	https://www.kredex.ee/en/services/elamistingimuste-parandamiseks/renovation-grant-2020
Supported interventions	<i>Deep renovation: envelope, indoor climate, heating systems, control and monitoring systems</i>
Average renovation level	High
Minimum EE criteria	National minimal requirements
Brief description of scheme	National renovation grant is part of the program for improving the living environment of citizens, combining state funding with private investments (and usually a bank loans) for partial and full renovations. Starting 2020 the grant program has established regional subsidy rates for: 30% (two biggest cities Tallinn and Tartu), 40% (areas around the biggest cities with average real estate prize above 500 EUR/m ²) and 50% (most of rural municipalities).
Budget, funding sources and investments achieved so far	
EU support	Yes
Funding sources	Unknown
Total budget	EUR 300 million (2010-2019)
Average annual budget	EUR 30 million
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	1114 (2010-2019)
Total floor area	2,8 million m ² (2010-2019)
Achieved energy savings	200 GWh
Achieved GHG reduction	222 ton tCO ₂
Other benefits or impact	Improved living environment

Germany

Baden-Wuerttemberg

Name of scheme	REnEECO
Geographical level	Regional
Name of region or city	Baden-Wuerttemberg
Type of policy	Grant/subsidy
Targeted sectors	Facilitation of ESCO projects
Beneficiaries	End customers (public, commercial, industry)
Dissemination	Subsidy program
Eligibility conditions	Signed ESCO contract (comparable to ELENA-EIB program)
Implementation period	2021-2024
Implementation body	Department of Environment Baden-Wuerttemberg
Website	www.umbwl.de
Supported interventions	Consultancy for facilitation
Average renovation level	Medium
Minimum EE criteria	National building regulation
Brief description of scheme	
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Consultancy (30-90%)
Total budget	1,8 MEUR
Average annual budget	0,6 MEUR
Total accrued investments	36 MEUR / 3 yrs
Average annual investments	actor 20 = 12 MEUR/yr at minimum
Impact achieved so far	
Level of overall impact of scheme	Unknown

Berlin

Name of scheme	Investment Bank Berlin Brandenburg (IBB) Energetic Building Renovation
Geographical level	Municipality/city
Name of region or city	Berlin, Brandenburg
Type of policy	Combination of above (specify)
Targeted sectors	Residential (all)
Beneficiaries	Select beneficiary
Dissemination	Select dissemination type
Eligibility conditions	Interest subsidy of up to 0.6% on KfW interest rate Fixed interest rates for up to 10 years up to EUR 50,000 per housing unit (individual measures) or up to EUR 120,000 per housing unit (energy efficiency house) save money and pay back less with the repayment subsidy invest in energetically renovated residential buildings
Implementation period	Unlimited
Implementation body	Investment Bank Berlin Brandenburg
Website	https://www.ibb.de/de/foerderprogramme/ibb-energetische-gebaeudesanierung.html
Supported interventions	Combination of various interventions
Average renovation level	High
Minimum EE criteria	Respective KfW standards (Efficiency house 55 etc.)
Brief description of scheme	With the loan programme IBB offers a low-interest loan from the KfW Bankengruppe (KfW banking group), which can be provided with a further nominal interest subsidy by the IBB.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	Investment Bank Berlin Brandenburg (IBB) IBB Condominium financing
Geographical level	Municipality/city
Name of region or city	Berlin
Type of policy	Grant
Targeted sectors	Multi-family houses
Beneficiaries	<i>Condominiums</i>
Dissemination	Combination of above (specify)
Eligibility conditions	
Implementation period	unlimited
Implementation body	Investment Bank Berlin Brandenburg
Website	https://www.ibb.de/de/foerderprogramme/ibb-weg-finanzierung.html
Supported interventions	Combination of above (specify)
Average renovation level	Low
Minimum EE criteria	
Brief description of scheme	3 funding programmes to choose from, can be combined with each other. No joint and several liability of WEG. Loan agreements with individual owners of the WEG. Access to low-interest KfW loans for WEG up to EUR 50,000, the registration of a land charge can be waived. All measures on common property are supported, such as: Improvement of energy efficiency, e.g. thermal insulation, window renovation, renewal of heating systems, including measures directly related to these barrier-reducing measures, e.g. retrofitting of lifts and stair lifts general rehabilitation and modernisation, e.g. renewal of water supply, rehabilitation of pipelines other construction measures, e.g. flood protection, noise protection, radon remediation What is not supported? Debt rescheduling and subsequent financing of completed projects
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	Investment Bank Berlin Brandenburg (IBB) Living room refurbishment
Geographical level	Municipality/city
Name of region or city	Berlin, Brandenburg
Type of policy	Combination of above (specify)
Targeted sectors	Residential (all)
Beneficiaries	<i>Municipal and private housing companies Housing cooperatives Landlords and investors Owner-occupied property</i>
Dissemination	Combination of above (specify)
Eligibility conditions	Individual calculation of the annual percentage rate of charge Fixed interest rates for up to 20 years up to 100,000 EUR per housing unit Flexible combination with other products apply without involving an energy efficiency expert (KfW-registered)
Implementation period	Unlimited
Implementation body	Investment Bank Berlin Brandenburg
Website	https://www.ibb.de/de/foerderprogramme/ibb-wohnraum-modernisieren.html
Supported interventions	Combination of above (specify)
Average renovation level	Low
Minimum EE criteria	Respective KfW standards (Efficiency house 55 etc.)
Brief description of scheme	Improvement of energy efficiency, e.g. thermal insulation, window replacement, renewal of heating systems, including measures directly related to these measures barrier-reducing measures, e.g. retrofitting of lifts and stair lifts general rehabilitation and modernisation of housing, e.g. alteration of the layout of the housing, renewal of sanitary installations, water supply Expansion through addition of another storey, cultivation and extension other construction measures, e.g. noise protection, repair of cellar water damage
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	Investment Bank Berlin Brandenburg (IBB) Heating exchange PLUS
Geographical level	Municipality/city
Name of region or city	Berlin
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	<i>Owners and condominium owners' associations of detached and semi-detached houses or buildings with majority residential use. The number of 20 residential units per building in the Berlin urban area may not be exceeded.</i>
Dissemination	Combination of above (specify)
Eligibility conditions	Consultancy support for building-specific renovation roadmap EUR 500 for owners of detached and semi-detached houses EUR 750 for individual owners or associations of owners of buildings with majority residential use and between three and a maximum of 20 residential units Support for the replacement of a heating system EUR 1,000 for gas boilers based on condensing technology and for efficient district heating stations EUR 3,500 for heat pumps, for wood pellet boilers and woodchip boilers, for mini combined heat and power plants and for fuel cell heating Additional funding in combination with solar thermal systems or heat pumps 500 EUR Coupling with solar service water heating 1,000 EUR Coupling with solar service water heating including heating support and for coupling with a heat pump
	Translated with www.DeepL.com/Translator (free version)
Implementation period	unlimited
Implementation body	Investment Bank Berlin Brandenburg

Website	-
Supported interventions	Combination of above (specify)
Average renovation level	Low
Minimum EE criteria	<p>Consultancy support for individual building renovation roadmap The support module includes independent advice on the following topics:</p> <p>Savings potentials during refurbishment Retrofitting or upgrading new plant technology for heating, cooling and domestic hot water Efficient use of renewable energies Support for the replacement of a heating system The support module includes the replacement of old installations such as oil-fired boilers, gas-fired boilers not based on condensing technology and individual furnaces fired by coal.</p> <p>The following efficient heating systems are eligible: Gas boilers based on condensing technology (Please note that the replacement of a gas boiler without condensing technology by a gas boiler with condensing technology can only be subsidised if a heat pump or solar collector system for domestic hot water preparation, space heating or for combined domestic hot water preparation and space heating is integrated proportionately at the same time). Heat pumps Wood pellet boilers and woodchip boilers Mini combined heat and power plants Solar collector systems for hot water preparation, space heating or for combined hot water preparation and space heating Fuel cell heating House stations for connection to efficient district heating The coupling of heating systems with solar thermal energy or a heat pump is promoted in addition to the replacement of the heating system.</p>
Brief description of scheme	<p>Translated with www.DeepL.com/Translator (free version)</p>
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	Investment Bank Berlin Brandenburg (IBB) "Energy Storage PLUS"
Geographical level	Municipality/city
Name of region or city	Berlin
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	<i>Private individuals and freelancers as well as companies, social, state or church institutions, cooperatives or housing associations</i>
Dissemination	Combination of above (specify)
Eligibility conditions	<p>The IBB promotes the acquisition and installation of grid-connected, secondary electricity storage systems and the simultaneous acquisition and commissioning of a photovoltaic system. The expansion of an existing solar plant which is older than 12 months and includes at least one additional photovoltaic module is also eligible for funding. Please note that only the expanded, new part of the PV system is used to calculate the eligible storage capacity.</p> <p>The ratio of the nominal power of the new photovoltaic system to the usable storage capacity must be at least 1.2 kilowatt peak (kWp) per 1 kilowatt hour (kWh).</p> <p>Deviations from the minimum installation ratio may be made in favour of a larger electricity storage unit if the storage unit is also used for electro mobility.</p> <p>The funding is open to all technologies. Possible storage systems include</p> <ul style="list-style-type: none"> battery storage Salt water batteries Redox Flow Systems Hydrogen storage systems with electrolyser and fuel cell <p>If the storage facility or energy management system has a forecast-based operation strategy (generation or consumption forecasts), you will receive an additional financial bonus.</p>
Implementation period	unlimited
Implementation body	Investment Bank Berlin Brandenburg
Website	https://www.ibb.de/de/foerderprogramme/energiespeicherplus.html

Supported interventions	Combination of above (specify)
Average renovation level	Unknown
Minimum EE criteria	
Brief description of scheme	"Energy StoragePLUS" at a glance up to EUR 15,000 grant for the acquisition and commissioning of a grid-based secondary electricity storage facility only if a photovoltaic system is purchased and installed at the same time EUR 300 bonus for electricity storage facilities with a forecast based operation strategy
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	Berlin Program for Sustainable Development (BENE) FS 1
Geographical level	Regional
Name of region or city	Berlin
Type of policy	Grant
Targeted sectors	Commercial
Beneficiaries	Combination of above (specify)
Dissemination	Website
Eligibility conditions	Investment in energy efficient technologies and /or renewable energy sources
Implementation period	2014-2020 (n+3)
Implementation body	Senate Department for The Environment, Transport and Climate Protection
Website	https://www.berlin.de/senuvk/umwelt/foerderprogramme/bene/
Supported interventions	Combination of above (specify)
Average renovation level	High (Target: better than a new building)
Minimum EE criteria	Various criteria depending on invested technology
Brief description of scheme	The overall program is divided in seven funding priorities (FS). Where in FS1 and FS2 energy efficient technologies in existing buildings is the main focus. The FS1 addresses private beneficiaries, who have at least the facility, which is going to be funded, located in Berlin area. The program is solely grants-based and funding shares were defined individually based on European and national law. Central objective is to motivate investors with renovation intentions to invest in energy efficient technologies. Including building restoration, efficient heating and cooling technologies and cross-sectional technologies. The evaluation is based on amount of GHG reduction and achieved energy savings in relation to the funding.
Budget, funding sources and investments achieved so far	
EU support	ERDF support - the program is co-funded by 50% of the eligible volume
Funding sources	ERDF: 50% of the eligible volume Regional / federal state: 30% of the eligible volume
Total budget	EUR 19,200,000 (2014-2020) of funding volume
Average annual budget	EUR 2,742,857
Total accrued investments	EUR 9,861,564 (Date August 27, 2020)
Average annual investments	EUR 3,721,344.9
Impact achieved so far -> Status August 27, 2020	
Level of overall impact of scheme	High
Total number of buildings	31
Total number of applications	66
Achieved energy savings	11,848,452 KWh/a
Achieved GHG reduction	5,966 t/a CO2-äqu
Other benefits or impact	Installed renewable energy power: 10 KW

Name of scheme	Berlin Program for Sustainable Development (BENE) FS2
Geographical level	Regional
Name of region or city	Berlin
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website, conferences
Eligibility conditions	Investment in energy efficient technologies and /or renewable energy sources
Implementation period	2014-2020 (n+3)
Implementation body	Senate Department for The Environment, Transport and Climate Protection
Website	https://www.berlin.de/senuvk/umwelt/foerderprogramme/bene/
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High (target: better than a new building)
Minimum EE criteria	Various criteria depending on invested technology
Brief description of scheme	The overall program is divided in seven funding priorities (FS). Where in FS1 and FS2 energy efficient technologies in existing buildings is the main focus. The FS2 addresses public beneficiaries, including schools, public buildings and non-profit organizations, culture and sports establishments. Additionally energy savings due to modern LED -Systems is included. The program is solely grant-based and funding shares were defined individually based on European and national law. Central objective is to motivate investors with renovation intentions to invest in energy efficient technologies. Including building restoration, efficient heating and cooling technologies and cross-sectional technologies. The evaluation is based on amount of GHG reduction and achieved energy savings in relation to the funding.
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF support (The program is co-funded by 50% of the eligible volume)
Funding sources	ERDF: 50% of the eligible volume Regional / federal state: 30% of the eligible volume
Total budget	EUR 114,400,000 (2014-2020)
Average annual budget	EUR 16,342,857
Total accrued investments	EUR 47,377,789.6 (Date August 27, 2020)
Average annual investments	EUR 17,878,411
Impact achieved so far -> Status August 27, 2020	
Level of overall impact of scheme	High
Total number of buildings	63
Total number of applications	132
Achieved energy savings	Target of all approved interventions: 100,755,173 KWh/a
Achieved GHG reduction	Target of all approved interventions: 28,853 t/a CO2-äqu
Other benefits or impact	Installed renewable Energy power: 1225 KW

Hamburg

Name of scheme	Energetische Sanierung öffentlicher Gebäude – Modernisierung der Gebäudetechnik
Geographical level	Municipality/city
Name of region or city	Hamburg
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	<i>In-government advertising</i>
Eligibility conditions	Public buildings
Implementation period	the programme is running under essentially current requirements since 2013
Implementation body	Environment, Climate, Energy and Agriculture Authority
Website	
Supported interventions	Combination of above (specify)
Average renovation level	Unknown
Minimum EE criteria	The financing costs must be saved and the co2 savings must not exceed 100 EUR per tonne of co2
Brief description of scheme	The measure provides for the implementation of efficiency projects in public buildings. The modernization of building technology is one of the most effective and economically interesting energy-saving measures for buildings. The production and distribution of heat for the buildings must be carried out with the highest possible efficiency in order to allow low CO2 emissions and cost-effective operation of the installations.
Budget, funding sources and investments achieved so far	
EU support	no EU support
Funding sources	Hamburg financial budget (100%)
Total budget	14,8 Mio Euro (2013 - 2018)
Average annual budget	2,4 Mio. Euro
Total accrued investments	13,4 Mio. Euro (2013 - 2018)
Average annual investments	2,2 Mio. Euro
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	22 (2018)
Total number of applications	28 (2018)
Achieved energy savings	Electrical energy: 725 MWh, heat energy: 772 MWh
Achieved GHG reduction	670 t CO2 per year (2018)
Other benefits or impact	Saving operating costs: 174.000 Euro per year

Name of scheme	Wärmeschutz im Gebäudebestand
Geographical level	Municipality/city
Name of region or city	Hamburg
Type of policy	Grant
Targeted sectors	<i>Single family houses, condominium, multi family houses</i>
Beneficiaries	Homeowners
Dissemination	<i>Website, Press release, mass campaign</i>
Eligibility conditions	Building permit aproved before 1995
Implementation period	Programme is running under current requirements since 2010
Implementation body	Investitions und Förderbank Hamburg (IFB)
Website	www.ifbhh.de
Supported interventions	<i>Insulation of building envelope, upgrade of technical systems</i>
Average renovation level	Medium
Minimum EE criteria	Increased requirements per component or below 90 kWh/m ² final energy demand per year in the balance process
Brief description of scheme	Funding program for owners of single-family, semi-detached or mult-familiy houses with apartment owners association. This funding program aims to modernize existing buildings by energetic upgrading of the building envelope and the system technology (in the balance process) initiate and thus conserve energy resources and reduce CO2 emissions. This is to be achieved through energetic standards that exceed those required by law.
Budget, funding sources and investments achieved so far	
EU support	no EU support
Funding sources	Hamburg financial budget (100%)
Total budget	1,99 Mio. Euro (2019)

Average annual budget	the budget is usually greater than the demand
Total accrued investments	1,68 Mio. Euro (2019)
Average annual investments	Annual investments depends on demand
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	263 (2019)
Achieved energy savings	no measurement of energy savings is published
Achieved GHG reduction	1269 t/CO2 per year (2019)
Other benefits or impact	Increase in demand for the local construction companies

Name of scheme	Modernisierung von Mietwohnungen
Geographical level	Municipality/city
Name of region or city	Hamburg
Type of policy	Grant
Targeted sectors	Multi family houses
Beneficiaries	<i>Landlords, Housing associations, Social housing associations, Business owners</i>
Dissemination	<i>Website, Press release, mass campaign</i>
Eligibility conditions	Multi-family tenement house, Building permit aproved before 1995
Implementation period	the programme is running under essentially current requirements since 2010
Implementation body	Investitions und Förderbank Hamburg (IFB)
Website	www.ifbh.de
Supported interventions	<i>Insulation of building envelope, upgrade of technical systems</i>
Average renovation level	High
Minimum EE criteria	Below 90 kWh/m ² final energy demand per year
Brief description of scheme	The energetic modernization of rental apartments in rental buildings with at least 3 residential units in Hamburg is supported, for which a building application was made until December 31, 1994.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Hamburg financial budget (100%)
Total budget	18,13 Mio. Euro (2019)
Total accrued investments	4,85 Mio. Euro (2019)
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	28 (2019)
Achieved energy savings	No measurement of energy savings is published
Achieved GHG reduction	1892 t/CO2 per year
Other benefits or impact	Helping to keep the rent affordable

Name of scheme	Energetische Modernisierung und Holzbau für Nichtwohngebäude Förderrichtlinie für die energetische Modernisierung der Gebäudehülle, die Energieberatung und die Verwendung von Holz beim Neubau von Nichtwohngebäuden
Geographical level	Regional
Name of region or city	Hamburg
Type of policy	Grant
Targeted sectors	Commercial
Beneficiaries	
Dissemination	<i>Website, press, campaign</i>
Eligibility conditions	Owners of non-domestic buildings in Hamburg
Implementation period	2011/2012
Implementation body	Hamburgische Investitions- und Förderbank
Website	https://www.ifbhh.de/programme/gruender-and-unternehmen/energie-und-ressourcen-einsparen-gu/nichtwohngebaeude-modernisieren-gu/modernisierung-von-nichtwohngebaeuden-und-holzbau
Supported interventions	Insulation of building envelope
Average renovation level	Unknown
Minimum EE criteria	Defined list of heat transfer coefficients Defined list of maximum heat transfer coefficients Defined list of heat transfer coefficients
Brief description of scheme	Examples for maximum u-values [W/(m ² k)] - exterior wall: 0,18 - roof: 0,14 - window: 0,85
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Free and Hanseatic City of Hamburg
Total budget	2,0 Mio. Euro
Average annual budget	2,0 Mio. Euro (2019-2020) 4,0 Mio. Euro (>2021)
Total accrued investments	5,9 Mio. Euro (2012-2019)
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	103
Total number of interventions/measures	195
Achieved GHG reduction	2.643 tons CO ₂ per year

Lower Saxony

Name of scheme	Heat pumps in selected living quarters in Lower Saxony
Geographical level	Regional
Name of region or city	State of Lower Saxony
Type of policy	Grant
Targeted sectors	Single family houses
Beneficiaries	Homeowners
Dissemination	<i>Website, Press release, Public announcement sheet</i>
Eligibility conditions	Selected quarters of single homes
Implementation period	2020 - 2023
Implementation body	Klimaschutz- und Energieagentur Niedersachsen (KEAN) / Institut für Solarenergieforschung (ISFH)
Website	www.klimaschutz-niedersachsen.de / isfh.de
Supported interventions	<i>Combination of RES and control systems</i>
Average renovation level	Unknown
Minimum EE criteria	coefficient of performance (COP) better than 3.5 to 4.0 (depending on the type of heat pump)
Brief description of scheme	Implementing decentral heat pumps in a living district with the aim to optimize the operation. To achieve this goal appropriate measurement and control technology is utilized and the data is collected by a central server. In a second step the data is scientifically analyzed.
Budget, funding sources and investments achieved so far	
EU support	no
Funding sources	Digital Master Plan, Lower Saxony (35-45 %)
Total budget	1.000.000 Euro (2020-2023)
Average annual budget	250.000 Euro
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	Has not started yet

Name of scheme	Richtlinie über die Gewährung von Zuwendungen zur Förderung von Maßnahmen der Energieeinsparung und Energieeffizienz bei öffentlichen Trägern sowie Kultureinrichtungen
Geographical level	Regional
Name of region or city	State of Lower Saxony
Type of policy	<i>up to 50% and in the transition region (former administrative district Lüneburg) up to 60% - max. 1 million EUR.</i>
Targeted sectors	<i>Municipalities and other legal entities under public law Non-profit organizations Social and health facilities Cultural institutions Persons under private law in cases in which the public sector uses a private legal form</i>
Beneficiaries	<i>Operator of public buildings and facilities, social and health facilities and cultural institutions in Lower Saxony</i>
Dissemination	Combination of above (specify)
Eligibility conditions	Energy savings at least in the ratio of 140 t CO2 equivalents per year and one million EUR investment sum
Implementation period	2014-2020
Implementation body	State government
Website	https://www.nbank.de/%C3%96ffentliche-Einrichtungen/Energie-Umwelt/Energieeinsparung-und-Energieeffizienz-bei-%C3%B6ffentl-Tr%C3%A4ger-sowie-Kultureinrichtungen/index.jsp
Supported interventions	<i>Insulation of building envelope and Upgrade of technical systems</i>
Average renovation level	High
Minimum EE criteria	Energy savings at least in the ratio of 140 t CO2 equivalents per year and one million EUR investment sum
Brief description of scheme	Investments in the energetic renovation or the construction of new non-residential buildings; including renovation or new acquisition of systems that provide energy to the aforementioned buildings; the storage of renewable energies at their place of origin; Construction of systems for the generation of heat from regenerative energy including the construction of heating networks including the associated creation of heating concepts
Budget, funding sources and investments achieved so far	
EU support	EFRE (87 Mio)
Funding sources	EFRE (The funding amount can be up to 50% and in the transition region (former administrative district Lüneburg) up to 60% of the eligible expenditure - max. 1 million EUR.)
Total budget	87 Mio (2014-2020)

Average annual budget	Depends on the number of applications on the reference date
Total accrued investments	Unknown
Average annual investments	Depends on the number of applications on the reference date
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	135 (2014-2020)
Total number of interventions/measures	73 (2014-2020)
Total number of applications	112 (2014-2020)
Achieved energy savings	Data are only to be submitted 2 years after completion of the program.
Achieved GHG reduction	Data are only to be submitted 2 years after completion of the program.
Other benefits or impact	Data are only to be submitted 2 years after completion of the program.
Name of scheme	Richtlinie über die Gewährung von Zuwendungen zur Förderung von Maßnahmen zur Optimierung des betrieblichen Ressourcen- und Energiemanagements
Geographical level	Regional
Name of region or city	State of Lower Saxony
Type of policy	<i>Grant up to 70% of the eligible expenditure</i>
Targeted sectors	<i>Enterprises</i>
Beneficiaries	<i>Small and medium-sized enterprises (SMEs) with a branch in Lower Saxony</i>
Dissemination	<i>Website, Press release, Public announcement sheet</i>
Eligibility conditions	Energy savings at least in the ratio of 140 t CO2 equivalents per year and one million EUR investment sum
Implementation period	2014-2020
Implementation body	State government
Website	https://www.nbank.de/Unternehmen/Energie-Umwelt/Optimierung-des-betrieblichen-Ressourcen-und-Energiemanagements-Energieeffizienzprojekte/index.jsp
Supported interventions	<i>Investing in buildings and equipment to reduce energy consumption Construction of systems for the generation of heat from regenerative energy (including the construction of heating networks and innovative storage of renewable energies at the place of their origin)</i>
Average renovation level	High
Minimum EE criteria	Energy savings at least in the ratio of 140 t CO2 equivalents per year and one million EUR investment sum
Brief description of scheme	Support small and medium-sized enterprises (SMEs) in questions of energy efficiency. The maximum allowance for resource efficiency measures is 80,000 EUR, for the establishment of energy efficiency networks 200,000 EUR and for individual measures to increase energy efficiency 250,000 EUR. Energy efficiency measures
Budget, funding sources and investments achieved so far	
EU support	EFRE (12 Mio)
Funding sources	EFRE (50%) State of Lower Saxony (20%)
Total budget	16,8 Mio (2014-2020)
Average annual budget	depending on the number of applications on the reference date
Total accrued investments	Unknown
Average annual investments	depending on the number of applications on the reference date
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	19 (2014-2020)
Total number of interventions/measures	78 (2014-2020)
Total number of applications	128 (2014-2020)
Achieved energy savings	Data are only to be submitted 2 years after completion of the program.
Achieved GHG reduction	Data are only to be submitted 2 years after completion of the program.
Other benefits or impact	Data are only to be submitted 2 years after completion of the program.

Name of scheme	Social housing promotion of the state of Lower Saxony
Geographical level	Regional
Name of region or city	State of Lower Saxony
Type of policy	<i>Grants, Repayment discounts, Soft loans</i>
Targeted sectors	Residential (all)
Beneficiaries	<i>Homeowners, Landlords, Housing associations, Social housing associations, Business owners</i>
Dissemination	<i>Website, Press release, Public announcement sheet</i>
Eligibility conditions	The support only benefits households that do not exceed a certain income. This applies to both tenants and owners of living space. It is currently stipulated that the living space to be modernized must have been completed before February 1, 2002.
Implementation period	Since 2007
Implementation body	State government
Website	http://www.nbank.de , https://www.umwelt.niedersachsen.de/startseite/themen/bauen_&_wohnen/wohnraumforderung/wohnraumförderung-in-niedersachsen-14207.html
Supported interventions	<i>Measures are promoted for the purpose of CO2 reduction and energy saving as well as for the use of renewable energies. This includes, in particular, the subsequent thermal insulation of the building walls, the roof, the basement ceiling or the outer surfaces of heated rooms in contact with the ground, the renewal of windows and exterior doors, the renewal of heating technology based on fossil fuels or measures to use renewable energy sources.</i>
Average renovation level	High
Minimum EE criteria	The subsidised measures must achieve the energy level of a new building on the basis of the legal provisions currently in force.
Brief description of scheme	The subsidy is granted in the form of low-interest loans and repayment discounts. In return for state subsidies, the subsidy recipient in the rental housing subsidy undertakes to rent the apartments only to households that do not exceed a certain income. In addition, the rent is limited to a certain amount. In the area of rental apartments, interest-free loans amounting to up to 75% of the costs are granted. In addition, a repayment discount of 30% of the loan is granted. In the area of home ownership, the owners receive an interest-free loan of EUR 50,000. Households with children or with people with disabilities receive higher loans.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	State funds (100%)
Total budget	A specific budget is not set. Financing is based on demand from a fund.
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of interventions/measures	65 on average per year in last 5 years

North Rhine-Westphalia

Name of scheme	ALTBAUNEU
Geographical level	Regional
Name of region or city	North Rhine-Westphalia
Type of policy	<i>Network</i>
Targeted sectors	<i>Municipality, districts</i>
Beneficiaries	<i>Homeowner, tenants</i>
Dissemination	<i>Network-meetings, website, press release, event-support</i>
Eligibility conditions	Municipalities must express the political will to participate in the project in the longer term. Continuity at local and national level is an important factor for ALTBAUNEU's success.
Implementation period	permanent, since 2005
Implementation body	EnergieAgentur.NRW, Roßstr. 92, 40476 Düsseldorf
Website	www.alt-bau-neu.de
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	Unknown
Minimum EE criteria	None
Brief description of scheme	<p>ALTBAUNEU helps districts and municipalities to make the advantages of energy-efficient renovation known to the owners of detached and semi-detached houses in their region. This will enable them to establish themselves as competent local partners among "their" homeowners and increase the "renovation rate".</p> <p>To this end, the experts of EnergyAgency.NRW, together with representatives of the municipality or district, are developing information and publicity campaigns on energy-efficient building modernisation. Subsequently, the participating districts and municipalities can use these offers for their citizens free of charge. They appear as the sender of the information and can thus identify themselves as expert contact persons. Many good ideas grow out of this cooperation, and the participating districts and municipalities also save money and personnel through this cooperation.</p> <p>ALTBAUNEU also fulfils two other important tasks: the exchange of experience between the municipal partners and the support in building and maintaining a local network of all those involved, such as energy consultants, planners and tradesmen. Such a network is the guarantee that homeowners willing to renovate will find competent contacts and at the same time the local economy is strengthened.</p> <p>The Internet presence is an important element in this process. Local information (local promotion, actions/events, advisory services, database of local craftsmen, architects, energy consultants, etc.) is presented in a bundled form on the portal. The EnergyAgency.NRW also provides up-to-date specialist information on building and funding.</p> <p>ALTBAUNEU is coordinated by the EnergyAgency.NRW and supported by the NRW Economic Affairs Ministry.</p>
Budget, funding sources and investments achieved so far	
EU support	ERDF 2014-2020
Funding sources	ERDF 2014-2020 (50%)
Impact achieved so far	
Level of overall impact of scheme	High

Name of scheme	progres.nrw - Markteinführung
Geographical level	Regional
Name of region or city	North Rhine-Westphalia
Type of policy	Grant
Targeted sectors	<i>Residential and commercial</i>
Beneficiaries	<i>Homeowner, landlord, business owners</i>
Dissemination	<i>Website and press release</i>
Eligibility conditions	Submission of application form before project implementation, only support of projects in North Rhine-Westphalia, use of brand-new systems, etc.
Implementation period	
Implementation body	Regional government Arnsberg
Website	www.progres.nrw
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	Unknown
Minimum EE criteria	Depends on the system used
Brief description of scheme	The aim of the grant program "progres.nrw - Markteinführung" is to accelerate the introduction and dissemination of the many applicable techniques for the use of renewable energy sources and the rational use of energy, thereby making a substantial contribution to climate protection and the reduction of carbon dioxide emissions. In fact, the technologies should be applied in a balanced relationship to each other.
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	23.500.000 Euro (2019)
Impact achieved so far	
Level of overall impact of scheme	High
Total number of interventions/measures	8722 (2019)

Saxony Anhalt

Name of scheme	STARK III ELER
Geographical level	Regional
Name of region or city	Saxony Anhalt (DEEO)
Type of policy	Grant
Targeted sectors	Public (school and kindergarten buildings)
Beneficiaries	Public authorities (school and kindergarten bearers - in one case, a private institution is the beneficiary)
Dissemination	<i>Conferences, newsletters, webpage</i>
Eligibility conditions	Various types of schoolbuildings, kindergartens
Implementation period	2014-2020 (n+3)
Implementation body	Investitionsbank Saxony-Anhalt
Website	www.starkiii.sachsen-anhalt.de
Supported interventions	<i>Each Promoter has to follow an optimized strategy to gain the best results in reducing GHG and heating requirement</i>
Average renovation level	Low
Minimum EE criteria	The energy savings have to undercut the technical values of the German energy savings regulation (EnEV)
Brief description of scheme	Various criteria were rated in an extensive selection process. For example the reduction of GHG and the reduction of heating requirement. The thrift of the action was also an important rating point.
Budget, funding sources and investments achieved so far	
EU support	Yes
Funding sources	EAFRD: 85.1 Mil. Euro (70.5%)
	Municipalities, districts, private Institution: 35.4 Mil. Euro (29.3 %)
	Saxony-Anhalt: 0.17 Mil. Euro (0.2%)
Total budget	120.7 Mil. Euro (2014-2020 (n+3))
Average annual budget	17.24 Mil. Euro
Impact achieved so far	
Level of overall impact	High
Total number of buildings	51 (2014-2020)
Total number of funding applications	202 (2014-2020)
Other benefits or impact	Improvement of the accessibility of the building

Finland

Name of scheme/programme	Satakunta Regional Strategy for energy and climate 2020
Geographical level	Regional
Name of region or city	Satakunta Region, Finland
Type of policy	<i>Regional development</i>
Targeted sectors	Residential (all)
Beneficiaries	Public authorities, Citizens, organisations
Dissemination	<i>Strategy</i>
Eligibility conditions	
Implementation period	-
Implementation body	-
Website	(https://issuu.com/satakuntaliitto/docs/satailme , available only in Finnish)
Supported interventions	Other (specify)
Average renovation level	Unknown
Minimum EE criteria	
Brief description of scheme	Satakunta regional strategy for energy and climate 2020 includes energy renovations of buildings at local and regional levels among many actions. Regional Strategy is currently being updated by Canemure (LifeIP) project. Towards Carbon Neutral Municipalities and Regions (Canemure) is a six-year project for implementing Finnish climate policy. The activities of the Canemure-project are centred in seven Finnish regions Satakunta being one of them. Regional cooperation groups will produce roadmaps for each region. (https://www.luke.fi/projektit/canemure/)
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Satakunta Regional Program 2018-2021
Geographical level	Regional
Name of region or city	Satakunta Region, Finland
Type of policy	<i>Regional policy</i>
Targeted sectors	Select sector
Beneficiaries	Select beneficiary
Dissemination	Select dissemination type
Eligibility conditions	
Implementation period	
Implementation body	
Website	
Supported interventions	Select type of intervention
Average renovation level	Select level
Minimum EE criteria	
Brief description of scheme	
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

France

Name of scheme/programme	Territorial subsidies coupled with the national white certificate scheme to support the Drôme local authorities in their energy transition
Geographical level	Regional
Name of region or city	Department of Drôme
Type of policy	Combination of market and grant policies
Targeted sectors	Subsidies targeting public buildings (tertiary & housing)
Beneficiaries	Public authorities - Communities (intercommunal bodies + municipalities)
Dissemination	Newsletters, mailings, face-to-face meetings
Eligibility conditions	For each energy efficiency operation, the technical eligibility conditions are those used by the national white certificate scheme. Subsidies are limited to local authorities that are members of the SDED (Energy syndicate for the Drôme department).
Implementation period	Since mid-2017
Implementation body	SDED the energy syndicate for the Drôme department)
Website	https://www.sded.org/download_file/150/194
Supported interventions	Thermal insulation, heating and domestic hot water, ventilation, regulation and programming of heating, lighting, technical equipment.
Average renovation level	Unknown
Minimum EE criteria	There is a specific energy efficiency criteria for each intervention.
Brief description of scheme	The national white certificate scheme is the main national tool for financing energy renovation in France. However, many collectivities don't use it either because it is deemed too complex, or because they didn't hear about it. The SDED has a strong will to help the communities of the department to engage energy efficiency work. Therefore, the SDED provides significant territorial grants to those communities, and integrates the national subsidies from the WCS within their grant. There are several advantages to linking territorial subsidies to the national WCS: 1/ to pay larger local grants; 2/ to use the energy efficiency criteria and control system set up by the WCS in their local scheme. 3/ getting local communities more accustomed with the national white certificate scheme, and making sure that national grants are not lost by local communities when doing energy efficiency work.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	National white certificates: 10% Local grants supported by the SDED: 90%
Total budget	1.5MEUR sofar for 3 years 2017, 2018, 2019
Average annual budget	500 000EUR in average (400kEUR in 2017, 500kEUR in 2018 and 600kEUR in 2019)
Total accrued investments	Arround 4.5MEUR for 3 years 2017, 2018, 2019
Average annual investments	In 2019, the local investments were 1.6MEUR
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	300 buildings for 3 years 2017, 2018, 2019
Total number of interventions/measures	900 interventions for 3 years 2017, 2018, 2019
Total number of applications	900. All applications are transformed into interventions
Achieved energy savings	100 GWh of energy saved for 3 years 2017, 2018, 2019
Achieved GHG reduction	no data
Other benefits or impact	The upstream involvement of project owners makes it possible to improve the energy quality of the planned works and to encourage additional energy efficiency interventions. This enables project owners to become increasingly acculturated to anticipate the energy performance of their works.

Name of scheme/programme	Territorial subsidies coupled with the national white certificate scheme to support the Ardèche local authorities in their energy transition
Geographical level	Regional
Name of region or city	Department of Ardèche
Type of policy	Combination of market and grant policies
Targeted sectors	Subsidies target public buildings (tertiary & housing)
Beneficiaries	Public authorities - Communities (intercommunal bodies + municipalities)
Dissemination	Newsletters, mailings, face-to-face meetings
Eligibility conditions	For each energy efficiency operation, the technical eligibility conditions are those used by the national white certificate scheme. Subsidies are limited to local authorities that are members of the SDE07 (Energy syndicate for the Ardèche department).
Implementation period	Since 2015
Implementation body	SDE07 (the energy syndicate for the Ardèche department)
Website	No website
Supported interventions	Most energy efficiency interventions are eligible
Average renovation level	Unknown
Minimum EE criteria	There is a specific energy efficiency criteria for each intervention.
Brief description of scheme	The national white certificate scheme is the main national tool for financing energy renovation in France. However, many collectivities don't use it either because it is deemed too complex, or because they didn't hear about it. The SDE07 has a strong will to help the communities of the department to engage energy efficiency work. Therefore, the SDE07 provides significant territorial grants to those communities, and integrates the national subsidies from the WCS within their grant. For SDE07, the main advantage of combining both subsidies is to be involved at the early stage of the energy efficiency project and therefore to provide valuable inputs to improve the quality and ambition of the project.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	National white certificates: 30% Local grants supported by the SDE07: 70%
Total budget	3.2MEUR sofar for 5 years since 2015
Average annual budget	600 000EUR in average
Total accrued investments	Arround 6MEUR for 5 years since 2015
Average annual investments	Around 1.2MEUR per year
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	438 buildings for 5 years since 2015
Total number of interventions/measures	1168 interventions for 5 years since 2015
Total number of applications	1168. All applications are transformed into interventions for 5 years since 2015
Achieved energy savings	315 GWh of energy saved for 5 years since 2015

Name of scheme/programme	Tinergie Servie Public de la Performance Energétique de l'habitat
Geographical level	EPCI (Local authority for Intermunicipal Co-operation)
Name of region or city	Brest métropole
Type of policy	Energy and housing policy
Targeted sectors	Real estate properties
Beneficiaries	Private property owners
Dissemination	
Eligibility conditions	All publics and types of collective and individual housing are eligible, but priority is given to construction before 1975
Implementation period	Since 2012
Implementation body	
Website	Tinergie-brest.fr
Supported interventions	Insulation, heating and ventilation system + renewable energies according to overall project performance
Average renovation level	High
Minimum EE criteria	Minimum 25% energy savings (20% of the projects), 38% energy savings (60% of the projects) and achievement of low-energy buildings (20% of the projects)
Brief description of scheme	Tool of the Climate Action Plan, Tinergie aims to mobilise private owners in the energy renovation of their homes through technical and financial support and by putting them in contact with local economic operators. In particular, the platform integrates a work of animation with local professionals: quality charter, training, structuring of the offer (craftsmen's group and high energy performance renovation / DoRéMi programme).
Budget, funding sources and investments achieved so far	
EU support	Yes metropolitan contract / CPER (State-region plan contract) 2014 2020 / coproperties: 600 000 EUR investment
Funding sources	Brest métropole: 374 KEUR per year (71%) Ademe: 81 KEUR (15%) Regio: 75 KEUR (14%)
Average annual budget	530 K EUR (excl. own HR)
Average annual investments	500 KEUR in 2020
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	2,038 buildings renovated with public funding in 2014/2019
Total number of applications	12 683 contacts in 2014/2019
Achieved energy savings	30 000 MWh/year

Name of scheme/programme	Rénovation Energétique de l'habitat public
Geographical level	Municipality/city
Name of region or city	Brest métropole
Type of policy	Energy and technical renovation
Targeted sectors	Multi family houses
Beneficiaries	Tenants
Dissemination	Tailored Advertising (by post, phone, mail)
Eligibility conditions	All publics and types of collective and individual housing are eligible but priority is given to housing with an energy label E, F and G.
Implementation period	2015
Implementation body	Low-income housing (HLM) agencies
Website	brest-metropole-habitat.fr
Supported interventions	Insulation of the frame envelope and upgrading of the technical equipment
Average renovation level	High
Minimum EE criteria	Conversion to energy label C
Brief description of scheme	Energy and technical renovation of the 311 housing units of Le Bergot neighbourhood in Brest, in the framework of the PSP (Plan Stratégique de Patrimoine / Strategic Estate Plan). The objective of these works is to treat the most energy-intensive housing, to improve the attractiveness, use and comfort of the dwellings. We entered into a partnership with Energie to support tenants in the use of the new facilities. Cafés Energie were deployed to accompany the rehabilitation work.
Budget, funding sources and investments achieved so far	
EU support	Yes ERDF (European Regional Development Fund)
Funding sources	PAM loan : rehabilitation loan from national Caisse des Dépôts des Consignations - 63%
	Eco loan - 23%
	Brest métropole grant - 5%
	ITI ERDF grant - 9%
Total budget	EUR 4750486.79
Total accrued investments	EUR 4750486.79
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	6
Total number of interventions/measures	311
Total number of consultations with the tenants	311
Achieved energy savings	1 106 528 kWh/year/sq.m
Achieved GHG reduction	97 Kg/sq.m/year
Other benefits or impact	Improvement of the living environment of the inhabitants Cost containment for residents Enhancement of our heritage (improved architectural image) and support from the local authority within the framework of the City's policy (improving the attractiveness of neighbourhoods)

Name of scheme/programme	Rénovation Energétique de l'habitat public
Geographical level	Municipality/city
Name of region or city	Brest métropole
Type of policy	Energy and technical renovation
Targeted sectors	Multi family houses
Beneficiaries	Tenants
Dissemination	Tailored Advertising (by post, phone, mail)
Eligibility conditions	All publics and types of collective and individual housing are eligible but priority is given to housing with an energy label E, F and G.
Implementation period	2015
Implementation body	Low-income housing (HLM) agencies
Website	Brest-metropole-habitat.fr
Supported interventions	Insulation of the frame envelope and upgrading of the technical equipment
Average renovation level	High
Minimum EE criteria	Conversion to energy label C
Brief description of scheme	The operation concerns the energy and technical renovation of 50 housing units located rue de Fougères in Brest. The objective of this PSP (Plan Stratégique de Patrimoine / Strategic Estate Plan) was to treat the most energy-intensive housing, to improve the attractiveness, use and comfort of the dwellings. We entered into a partnership with Emergence to support tenants in the use of the new facilities. Cafés Energie were deployed to accompany the rehabilitation work.
Budget, funding sources and investments achieved so far	
EU support	Yes ERDF (European Regional Development Fund)
Funding sources	PAM loan : rehabilitation loan from national Caisse des Dépôts des Consignations - 14%
	Eco loan - 59%
	Brest métropole grant - 6%
	CLAM - Charges en logement ancien maîtrisées - an initiative of the Finistere county council - 4%
	ITI ERDF grant - 17%
Total budget	EUR 1178954.45
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	1
Total number of interventions/measures	50
Total number of consultations with the tenants	50
Achieved energy savings	98 kWh/year/sq.m
Achieved GHG reduction	23 Kg/sq.m/year
Other benefits or impact	Improvement of the living environment of the inhabitants Cost containment for residents Enhancement of our heritage (improved architectural image) and support from the local authority within the framework of the City's policy (improving the attractiveness of neighbourhoods)

Name of scheme/programme	General Interest Program (GIP)
Geographical level	Regional (Islands of Sein, Molène and Ouessant)
Name of region or city	Brittany Region
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	Homeowners
Dissemination	Combination of above (specify)
Eligibility conditions	Housing more than 2 years old
Implementation period	November 1, 2012 - December 31, 2017
Implementation body	The Ponant Islands Association
Website	https://www.iles-du-ponant.com/ https://www.iles-du-ponant.com/preserver/transition-energetique/renovation-de-lhabitat/
Supported interventions	Insulation work, change of heating systems and hot water production, housing ventilation
Average renovation level	Medium
Minimum EE criteria	25% energy saving
Brief description of scheme	From November 1, 2012 to December 31, 2017, the islands of Sein, Molène and Ouessant benefited from a General Interest Program (PIG) aimed at providing technical and financial support to the inhabitants of the islands for the improvement of their housing (energy performance, accessibility). The program partners were: The department of Finistère, the Housing Agency, EDF, the Brittany region, ADEME.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	The department of Finistère (CD 29) - 18%
	ANAH (the Housing Agency) - 51%
	the brittany Region - 6%
	ADEME - 5%
	The Ponant Islands Association - 20%
Total budget	EUR 139370.73 for the period November 1, 2012 to December 31, 2017
Average annual budget	28,000 EUR
Total accrued investments	2 465 061 EUR TTC for works (966 731 EUR in aid awarded : 578 885 EUR in aid from ANAH / CD29 - 319 134 EUR in aid from EDF SEI, 68 712 EUR in aid from pension fund) in the period from November 1, 2012 to December 31, 2017
Average annual investments	493000 EUR for works (on average 193 350 EUR in aid granted)
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	156 housings renovated in total on the 3 islands (Including 127 main residences i.e. 18% of all main residences on the 3 islands) in the period from November 1, 2012 to December 31, 2017
Achieved energy savings	2 740 megawatt hours of primary energy saved in the period from November 1, 2012 to December 31, 2017
Achieved GHG reduction	2 130 tonnes of GHG saved in the period from November 1, 2012 to December 31, 2017

Name of scheme/programme	Rénov'îles
Geographical level	Regional (Islands of Sein, Molène and Ouessant)
Name of region or city	Brittany Region
Type of policy	Grant and technical support for the choice of works
Targeted sectors	Any building on the islands of Sein, Molène and Ouessant
Beneficiaries	Any building owner on the islands of Sein, Molène and Ouessant
Dissemination	Combination of various types
Eligibility conditions	Housing more than 2 years old
Implementation period	January 1, 2019 - December 31, 21 - renewable for 2 years
Implementation body	The Ponant Islands Association
Website	https://www.iles-du-ponant.com/ https://www.iles-du-ponant.com/preserver/transition-energetique/renovation-de-lhabitat/
Supported interventions	Insulation work, change of heating systems and hot water production, housing ventilation
Average renovation level	Medium
Minimum EE criteria	/
Brief description of scheme	In order to continue improving the energy efficiency of housing to reduce electricity consumption and accelerate the objective of energy autonomy of non-interconnected islands, a new program of financial and technical support for energy saving works. The energy is put in place by EDF SEI (financial support for works) and AIP (operational implementation of the program) in Sein, Ouessant and Molène, from January 1, 2019. This support takes the form of flat-rate grants per type of work paid to applicants following completion of the work. The beneficiaries of the program can be owners of permanent housing or secondary housing, owners of commercial buildings (shops, restaurants, hotels, services, etc.) or island communities.
Budget, funding sources and investments achieved so far	
EU support	NO
Funding sources	EDF SEI - 100%
Total budget	EUR 114488 in 2019
Total accrued investments	256 616 EUR TTC for works (106 376 EUR in aid awarded)
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	39 housings renovated in total on the 3 islands in 2019
Achieved energy savings	578 megawatt hours of final energy saved in 2019
Achieved GHG reduction	449 tonnes of GHG saved in 2019

Name of scheme/programme	Oktave
Geographical level	Regional
Name of region or city	Grand Est
Type of policy	One-stop-shop for housing renovation
Targeted sectors	└ Single family houses
Beneficiaries	Homeowners
Dissemination	All the proposed dissemination type
Eligibility conditions	Realization of at least 2 insulation stations of the house and the airflow
Implementation period	Since 2015
Implementation body	Oktave is a semi-public company
Website	https://www.oktave.fr/
Supported interventions	Insulation of building envelope
Average renovation level	High
Minimum EE criteria	150 kWh/m ² .an EP tout usage
Brief description of scheme	Oktave offers a full service including advice, support and funding for energy efficient renovation projects through its three-pronged action: 1) Oktave gives tailored support from independent energy efficiency advisers on all technical, financial and administrative aspects of a renovation project; 2) Oktave gives private households access to professionals with references on their training and experience in the energy efficient renovation sector. These building professionals have acquired the expertise and synergy to renovate any type of individual home to BBC level. 3) Oktave can offer a third party financing facility in partnership with the Grand Est SACICAP (socially beneficial cooperative companies for home ownership) and banks. A fund has also been set up to provide bridge funding for aid for home owners who cannot pay upfront the substantial costs of renovations.
Budget, funding sources and investments achieved so far	
EU support	MLEI-PDA: engineering prior to creation (1,2 MEUR from 2014 to 2018) ELENA Facility: start-up grant (2,2 MEUR from 2019 to 2022)
Funding sources	Region Grand Est - 15%
	Oktave Shareholders - 23%
	UE (MLEI-PDA) - 45%
	UE (ELENA) - 12%
	Sales figures - 5%
Total budget	2,5 Million EUR in 2014-2019
Average annual budget	416 000 EUR
Total accrued investments	20 Million EUR in 2014-2019
Average annual investments	3,3 Million EUR
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	246 in 2014-2019
Total number of interventions/measures	not applicable
Total number of applications	not applicable
Achieved energy savings	2590 Mw/year in 2014-2019
Achieved GHG reduction	500 tCO2/year in 2014-2019
Other benefits or impact	166 employment in annual work unit

Name of scheme/programme	artéé
Geographical level	Regional
Name of region or city	Nouvelle-Aquitaine
Type of policy	Loan, third party financing
Targeted sectors	Single family houses
Beneficiaries	Homeowners
Dissemination	All dissemination channels
Eligibility conditions	Improve energy efficiency at least 40 per cent
Implementation period	2017 to 2020
Implementation body	Agence régionale
Website	https://www.artee.fr/
Supported interventions	All EE/RES measures
Average renovation level	High
Minimum EE criteria	Improve energy efficiency at least 40 per cent
Brief description of scheme	Third party financing operator, in order to help the energy renovation of individual houses, ARTÉE offers a comprehensive renovation service. It is aimed at all private owners, landlords or occupants or in the acquisition phase of housing. The service offered by ARTÉE consists of two main stages: - The energy audit of housing, with the target of reducing consumption by 40%, - And Accompaniment to the works, including if necessary the project's funding.
Budget, funding sources and investments achieved so far	
EU support	ELENA et ERDF
Funding sources	ERDF 500 000 EUR ELENA 814 168 EUR
Total budget	1,314,168
Average annual budget	438,056
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	398 in 2018-mid 2020
Total number of interventions/measures	11,7 MEUR in 2018-mid 2020
Total number of applications	398 in 2018-mid 2020
Achieved energy savings	4 595 857 kWh / year
Achieved GHG reduction	1 065 700 kg / year
Other benefits or impact	1 625 236 kWh / year renewable energy

Name of scheme/programme	SPIRE
Geographical level	Regional
Name of region or city	Occitanie
Type of policy	Loan
Targeted sectors	Residential (all)
Beneficiaries	Homeowners
Dissemination	Mass Campaign
Eligibility conditions	min 40% decrease of primary energy consumption
Implementation period	2020-2024
Implementation body	SPL AREC (Regional Agency for Environment and Climate)
Website	www.arec-occitanie.fr
Supported interventions	Combination of above (specify)
Average renovation level	High
Minimum EE criteria	min 40% decrease of primary energy consumption
Brief description of scheme	The SPIRE is offering a support service to all households in the Occitanie Region wishing to undertake energy renovation projects in their homes, combined with a subsidised loan to facilitate financing of the works.
Budget, funding sources and investments achieved so far	
EU support	ELENA, BEI loan
Funding sources	Région Occitanie - EUR 40 million BEI loan - EUR 40 million ELENA - EUR 2 million
Total budget	82 MEUR
Average annual budget	16 MEUR
Total accrued investments	70 MEUR
Average annual investments	14 MEUR

Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Batiments démonstrateurs en efficacité énergétique (Energy efficiency showcase/demonstrator buildings)
Geographical level	Regional
Name of region or city	Région Centre-Val de Loire
Type of policy	Grant
Targeted sectors	2016 Call : Public offices buildings 2018 Call : Co-ownership buildings
Beneficiaries	2016 Call : Public authorities 2018 Call : Co-owners
Dissemination	The aim of these calls is to showcase, to disseminate the results of energetic renovation. Ex of actions: organisation of visits, production of deliverables...
Eligibility conditions	_respect of the "BEPOS Effinergie" technical reference _respect of the french "biosourced building" reference _include a monitoring and dissemination strategy
Implementation period	Two calls : one in 2016 and one in 2018
Implementation body	Région Centre-Val de Loire
Website	http://energies-centre.regioncentre.fr/home/appels-a-projets/batiment-demonstrateur-en-efica.html
Supported interventions	Construction of new buildings
Average renovation level	High
Minimum EE criteria	Buildings have to be positive energy buildings
Brief description of scheme	These calls aim to support the development of demonstrators in different sectors so the people can see concrete examples of buildings respecting the highest environmental standards .
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF Région Centre-Val de Loire
Total budget	2016 Call: 1 688 300EUR 2018 Call: 6 073 377EUR
Total accrued investments	EUR 7761677
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	20 between 2016 and 2019
Total number of interventions/measures	20 between 2016 and 2019
Total number of applications	20 between 2016 and 2019
Other benefits or impact	These projects are raising awareness in the territories

Name of scheme/programme	Mur Mur: Retrofitting private buildings to reduce energy consumption
Geographical level	Municipality/city
Name of region or city	Grenoble-Alpes Metropole, France
Type of policy	Grant
Targeted sectors	Multi-family houses
Beneficiaries	Homeowners/co-owners
Dissemination	Tailored Advertising (by post, phone, mail)
Eligibility conditions	Condominiums built between 1945 and 1975
Implementation period	Phase 1: 2010 - 2014, focussing on condominiums built between 1945 and 1975. Phase 2: ongoing, with two different schemes for: - Condominiums built before 1945 and after 1975 - Condominiums built between 1945 and 1975
Implementation body	Grenoble-Alpes Metropole Agence Locale de l'Énergie et du Climat (ALEC)
Website	https://www.grenoblealpesmetropole.fr/265-mur-mur.htm
Supported interventions	Insulation of building envelope
Average renovation level	Unknown
Minimum EE criteria	Not specified
Brief description of scheme	Combination of financial assistance (from La metro and its partners) and financial incentives (block grants and grants for low income households)
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	22 million
Total accrued investments	61 million
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	87 buildings in 5 years
Total number of interventions/measures	4467 dwellings
Achieved GHG reduction	5200 tonnes CO2
Other benefits or impact	- 36 professional stakeholders trained in low energy renovations - creation of local jobs in the construction sector

Name of scheme/programme	Écoréno'v
Geographical level	Municipality/city
Name of region or city	Grand Lyon, France
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	Homeowners/co-owners
Dissemination	Tailored Advertising (by post, phone, mail)
Eligibility conditions	Buildings from before 1990
Implementation period	2015 - 2020
Implementation body	Grand Lyon & Agence Locale de l'Énergie et du Climat (ALEC) with the support of ADEME and Auvergne-Rhône-Alpes Region
Website	https://www.grandlyon.com/services/ecorenov.html https://s3.alec-lyon.org/uploads/2020/10/fichebilan-2020-09-30.pdf
Supported interventions	Thermal renovation of buildings
Average renovation level	Medium/High
Minimum EE criteria	- 35 % energy savings --> Métropole de Lyon will grant 2,000 EUR per unit. - 96 kWh/m ² /year (BBC) --> Métropole de Lyon will grant 3,500 EUR per unit. Additional support provided if bio-based materials are used
Brief description of scheme	The Ecoreno'v platform provides guidance to owners and co-owners willing to carry out an energy renovation of their buildings. Subsidies from the Métropole can be combined with other types of financial support: grants for households with little disposable income, Crédit d'Impôt Transition Énergétique (CITE), Certificats d'Économie d'Énergie (CEE), Eco prêt à taux zéro (Eco-PTZ).
Budget, funding sources and investments achieved so far	
EU support	Horizon 2020
Total budget	EUR 44,2 million
Total accrued investments	EUR 305 million
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	125 MFH 289 SFH 34 social housing
Total number of interventions/measures	16081 dwellings in 2015 - 2020

Ireland

Name of scheme/programme	LEADER Programme
Geographical level	Municipality/city
Name of region or city	Kilkenny, Carlow and Wexford
Type of policy	Grant
Targeted sectors	Combination of above (specify)
Beneficiaries	Combination of above (specify)
Dissemination	Website
Eligibility conditions	N/A
Implementation period	ERDF programme 2014-2020
Implementation body	Leader / LAG
Website	
Supported interventions	Select type of intervention
Average renovation level	Select level
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Local Agenda 21
Geographical level	National
Name of region or city	Ireland
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Communities & Agencies
Dissemination	Website - Local Authority Environment Sections
Eligibility conditions	Environmental initiatives to benefit the community
Implementation period	1997 - Ongoing
Implementation body	Department of Communications Climate Action & Environment
Website	https://www.dccae.gov.ie/en-ie/environment/topics/environmental-protection-and-awareness/local-agenda-21-partnership-fund/Pages/default.aspx
Supported interventions	Other e.g. Energy Audit
Average renovation level	Low
Minimum EE criteria	N/A
Brief description of scheme	<p>The Local Agenda 21 Environmental Partnership Fund (LA21) which has operated since 1997, promotes sustainable development by assisting small-scale environmental projects at local level. The Scheme has been renamed the Community Environment Action Fund from 2019 onwards.</p> <p>The projects involve partnership arrangements between local authorities and various local groups including community groups, schools and environmental NGOs.</p> <p>The Fund encourages involvement of local communities in local action and decision-making and assists them in working towards the goal of sustainable development. The value of the scheme is enhanced by the voluntary effort that it facilitates.</p>
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Enterprise Ireland
Geographical level	National
Name of region or city	Ireland
Type of policy	Grant
Targeted sectors	SMEs, Education, Retail
Beneficiaries	Business owners, SMEs, Higher Education
Dissemination	Website, Tailored advertising
Brief description of scheme	Granting body offers a wide range of supports for Business, SMEs, Commercial and Higher Education. Unknown if they support building energy upgrades or renovations. Need to forward document to Enterprise Ireland for completion.
Budget, funding sources and investments achieved so far	
EU support	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Local Authority Swimming Pool Programme
Geographical level	National
Name of region or city	Ireland
Type of policy	Grant/Energy & Disability Access
Targeted sectors	Leisure Clubs
Beneficiaries	Swimming Pools
Dissemination	Website/tailored call
Eligibility conditions	Swimming pools under local authority ownership/control
Implementation period	2000 - 2018 (Potential renewal in 2020)
Implementation body	Department of Transport Tourism and Sport
Website	http://dttas.old.gov.ie/sport/english/local-authority-swimming-pool-programme
Supported interventions	Combination of above (specify)
Average renovation level	High
Minimum EE criteria	N/A
Brief description of scheme	Grant aid from the Exchequer is made available to local authorities and bodies supported by local authorities, towards the cost of providing new swimming pools or refurbishing of existing pools. The closing date for receipt of applications under the current Programme was 31 July 2000 and since then some 57 applications have been or are being dealt with.
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Grant Aid up to 90% Own Resources to match remaining part (10%)
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of applications	57

Name of scheme/programme	Department of Culture, Heritage & the Gaeltacht
Geographical level	National
Name of region or city	Ireland
Type of policy	Grant/Cultural Capital Scheme 2019 - 2022
Targeted sectors	Public/Arts & Culture
Beneficiaries	Theatres
Dissemination	Website/Tailored call
Eligibility conditions	
Implementation period	2019 - 2022
Implementation body	DCHG
Website	https://www.chg.gov.ie/arts/creative-arts/grants-and-funding/
Supported interventions	Various EE measures
Average renovation level	High
Minimum EE criteria	
Brief description of scheme	<p>Stream A will offer grants up to EUR50,000 for small enhancement/expansion/ refurbishment projects which may involve construction works to arts and culture facilities and/or upgrading of equipment.</p> <p>Stream B will offer grants from EUR50,000 up to EUR300,000 for larger enhancement / expansion /refurbishment projects involving construction works to arts and culture facilities.</p> <p>Stream C will be a separate scheme aimed at the upgrading of visual artists' workspaces. This will be run by the Visual Artists Ireland (VAI) separately on behalf of the Department and will be for grants sought up to EUR15,000. This will be advertised on the VAI website in due course, www.visualartists.ie</p>
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	50000 - 300000
Total budget	4500000 in 2019 - 2022
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Warmth and Wellbeing Pilot Scheme
Geographical level	Applicants must be in the Dublin 8, 10, 12, 22 and 24 areas
Name of region or city	Dublin
Type of policy	Grant (No cost to the homeowner)
Targeted sectors	Scheme is for the upgrade of housing with vulnerable (0-12, or 55+) persons who are in receipt of social supports and reside within the pilot area
Beneficiaries	Homeowners and tenants
Dissemination	Applicants are referred by the Irish health service
Eligibility conditions	Scheme is for the upgrade of housing with vulnerable (0-12, or 55+) persons who are in receipt of social supports and reside within the pilot area. The dwelling must have been occupied since 2006
Implementation period	On-going
Implementation body	Sustainable Energy Authority of Ireland
Website	https://www.seai.ie/grants/home-energy-grants/free-upgrades-for-eligible-homes/warmth-and-wellbeing/
Supported interventions	Attic – insulation and ventilation Walls – insulation and ventilation Boiler – replacement, including heating controls Windows and doors – replacement where inefficient
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	https://www.seai.ie/grants/home-energy-grants/free-upgrades-for-eligible-homes/warmth-and-wellbeing/
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Midlands Retrofit Scheme
Geographical level	Regional
Name of region or city	Midlands IE063
Type of policy	County Councils will select the house to be retrofitted
Targeted sectors	Single family houses (Clusters of houses will be identified and retrofitted)
Beneficiaries	Houses will be retrofitted which will benefit the occupant, whether they be owner or tenant
Dissemination	Tailored Advertising (by post, phone, mail). Councils will survey selected houses to see what works are needed. After surveying a house, the council will plan the works and inform the householder when works will begin.
Eligibility conditions	Unknown, but probably specific to the council area
Implementation period	Late 2020 into 2021
Implementation body	Midlands County Councils (Laois, Longford, Offaly, Westmeath)
Website	https://www.housing.gov.ie/housing/building-standards/energy-performance-buildings/midlands-retrofit-programme-local-authority#:~:text=The%20Government%20is%20funding%20a,and%20more%20efficient%20to%20heat
Supported interventions	Works typically involve insulation of attics, walls and roofs; upgrading of windows and doors; replacement of heating systems; and the installation of LED lighting.
Average renovation level	Unknown
Minimum EE criteria	Retrofitted to a Building Energy Rating (BER) of "B2" (or to a cost-optimal level)
Brief description of scheme	Under the programme, selected council-owned houses in the Midlands region will be retrofitted to a Building Energy Rating (BER) of "B2" (or to a cost-optimal level). These retrofits' aim to improve the heating and comfort of the whole home. Works typically involve insulation of attics, walls and roofs; upgrading of windows and doors; replacement of heating systems; and the installation of LED lighting. They usually result in the Building Energy Rating (BER) of a house improving from a D- or E-rating to a B2.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Irish Carbon tax - 100%
Total budget	20 million
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Better Energy Warmer Homes
Geographical level	Select geographical level
Name of region or city	Border, Midland & Western Region, Ireland
Type of policy	Grant
Targeted sectors	Single family houses
Beneficiaries	Homeowners
Dissemination	Website, press release, email campaign
Eligibility conditions	Built pre 2006, privately owned and specified low income thresholds
Implementation period	2014-2020
Implementation body	SEAI
Website	https://www.seai.ie/grants/home-energy-grants/free-upgrades-for-eligible-homes/
Supported interventions	Wall insulation, internal draft proofing, energy efficient lighting and lagging jackets
Average renovation level	Medium
Minimum EE criteria	Improvement in BER Scale
Brief description of scheme	<p>There are a number of home energy improvements offered as part of this scheme. The upgrades that will be recommended for a property will depend on many things including age, size, type and condition of the property. For each eligible home, our SEAI technical surveyor will determine which upgrades can be installed and funded.</p>
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF - 50% National - 50%
Total budget	50393025
Average annual budget	8398837
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	7898
Total number of interventions/measures	7898
Achieved energy savings	157KW per year
Achieved GHG reduction	1433 Tonnes
Other benefits or impact	[Time period or year]

Name of scheme/programme	Better Energy Warmer Homes (BEWH)
Geographical level	Regional
Name of region or city	Southern and Eastern Region, Ireland
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	Homeowners
Dissemination	Websites, Press Releases, Citizens Information, Energy Agencies, etc.
Eligibility conditions	1. Own and live in own home, 2. Be in receipt of one of the following: · Fuel Allowance as part of the National Fuel Scheme, · Job Seekers Allowance for oversix months and have a child under seven*, · Working Family Payment, · One-Parent Family Payment, · Domiciliary Care Allowance, · Carers Allowance and live with the person you are caring for* 3. Your home must have been built and occupied before 2006
Implementation period	2014 -2020
Implementation body	Sustainable Energy Authority of Ireland
Website	https://www.seai.ie/grants/home-energy-grants/free-upgrades-for-eligible-homes/
Supported interventions	Energy efficiency improvement measures include include dry lining, draught proofing, attic insulation, lagging jackets for hot water tanks, low energy light bulbs and cavity wall insulation. In certain circumstances, the Scheme may cover external or internal wall insulation, central heating and replacement windows.
Average renovation level	Medium
Minimum EE criteria	All energy efficiency works will be undertaken in accordance with SR 54 - Methodology for the energy efficient retrofit of existing dwellings. Measures undertaken should improve the household energy consumption classification by at least one level, however in some cases this is not achievable but the energy poverty of a particular household is lessened.
Brief description of scheme	The Warmer Homes Scheme aims to improve the energy efficiency of households at risk of energy poverty and in the process reduce the amount of expenditure that is required to be spent on energy. Other secondary objectives are to improve health and well-being, while reducing the amount of disposal income spent on energy. A reduction in spend on energy will also make a positive contribution to reducing poverty in at-risk households. The Better Energy Warmer Homes scheme is delivered by SEAI on behalf of the Department of Communications, Climate Action and Environment (DCCAE). The scheme delivers a range of energy efficiency measures to private households that are vulnerable to energy poverty. The scheme is delivered through private contractors and regional not-for-profit organisations appointed through public procurement.
Budget, funding sources and investments achieved so far	
EU support	Yes, co-funded from the ERDF
Funding sources	ERDF- 50%
Total budget	National Contribution- 50%
Average annual budget	83014655 in 2014-2019 (Annual vote allocation from DCCAE)
Total accrued investments	EUR 13,835,776 in 2014-2019
Average annual investments	EUR 83,014,655 2014-2019
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	20730 in 2014-2019
Total number of interventions/measures	20730 in 2014-2019
Achieved energy savings	43.53 GWh in 2014-2019
Achieved GHG reduction	10,796 Tonnes of CO2 equivalent.
Other benefits or impact	The Warmer Homes Scheme delivers energy efficiency measures in residential homes, reducing energy usage and carbon emissions. The scheme is specifically targeted at vulnerable people who are living in fuel poverty. SEAI ensures that all services are equally accessible to those with disabilities and tailor our communications accordingly to facilitate specific needs. The Warmer Homes scheme fully funds energy efficiency improvements in the homes of the elderly and vulnerable, making their homes more comfortable, healthier and more cost effective to run. Since the commencement of the WHS, SEAI has utilised organisations embedded in local communities (community-based organisations) to address eligible homes, supplemented by a large number of private contractors to ensure full geographical coverage. As such the scheme is addressing a range of social, environmental and economic issues.

Italy

Abruzzo

Name of scheme/programme	Incentives for energy efficiency
Geographical level	Regional and municipal
Name of region or city	Abruzzo
Type of policy	Loan
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	N/A
Implementation body	Regione Abruzzo
Website	https://www.regione.abruzzo.it/
Supported interventions	Interventions in which seismic improvement and other efficiency initiatives already underway were also encouraged. Preference was given to mountain municipalities
Average renovation level	N/A
Minimum energy efficiency criteria	N/A
Brief description of scheme	The loan is non-repayable and there is no co-participation.
Budget, funding sources and investments achieved so far	
EU support	Yes, POR FESR
Funding sources	POR FESR EUR 8,500,000.00 Ministerial funding EUR 900,000.00 Thermal account EUR 600,000.00
Impact achieved so far	
Level of overall impact of scheme	The percentages of reductions envisaged for consumption and emissions are, on average, 40%.

Basilicata

Name of scheme/programme	ITI montagna materana
Geographical level	Regional and Municipal
Name of region or city	Basilicata
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	planned
Implementation body	Regione Basilicata
Website	www.regione.basilicata.it
Supported interventions	N/A
Average renovation level	Medium
Minimum energy efficiency criteria	N/A
Brief description of scheme	The Management Authority of the PO FESR has approved these feasibility statements (schede di fattibilità). The program agreements must follow. Those for Collina Materana and Val Sarmento Valley have not yet been signed. Budget is estimated.
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	N/A
Total budget	Renovation of public buildings: EUR 800,000; Public Lighting: EUR 1,500,000
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	ITI val sarmento
Geographical level	Regional and Municipal
Name of region or city	Basilicata
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	planned
Implementation body	Regione Basilicata
Website	www.regione.basilicata.it
Supported interventions	N/A
Average renovation level	Medium
Minimum energy efficiency criteria	N/A
Brief description of scheme	The Management Authority of the PO FESR has approved these feasibility statements (schede di fattibilità). The program agreements must follow. Those for Collina Materana and Val Sarmento Valley have not yet been signed. Budget is estimated.
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	N/A
Total budget	Renovation of public buildings: EUR 1,359,500, Public Lighting: EUR 3,525,000
Impact achieved so far	
Level of overall impact of scheme	Unknown

Calabria

Name of scheme/programme	POR FESR Calabria 2014-2020 - Public Notice for the improvement of common buildings SRAI (DGR 215/2018) DECREES NN. n. 6187/2019 and n. 9656/2019
Geographical level	Regional
Name of region or city	Calabria
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website + press release
Eligibility conditions	<p>Improvement interventions on publicly owned properties located in the Calabrian municipalities included in the Regional Strategy for Internal Areas (DGR 215/2018). Specifically, interventions aimed at making individual buildings or a set of buildings more efficient (to be understood as a complex of contiguous, adjacent or adherent buildings) are admissible through the realization of the following works under Action 411 of the POR FESR Calabria 2014-2020: - on envelope (construction of thermal coats, replacement of fixtures, elimination of thermal bridges, sun screens, green roofs, etc.);</p> <ul style="list-style-type: none"> - on heating and / or air conditioning systems (replacement of boilers, solar thermal systems, solar cooling systems, heat pumps, high efficiency cogeneration systems, etc.); - on lighting systems through the predominant use of high efficiency devices; - on existing plants through the installation of intelligent systems for remote control, regulation, management, monitoring and optimization of energy consumption (smart buildings). <p>And also interventions, under Action 412 of the POR FESR Calabria 2014-2020, which consist in the realization of:</p> <ul style="list-style-type: none"> energy production systems from renewable sources with high energy efficiency for self-consumption (solar thermal, solar cooling, geothermal, mini / micro wind, photovoltaic, etc.); - high efficiency cogeneration and tri-generation plants; - energy storage devices produced directly at the users. <p>The interventions to be financed on action 4.1.2 must be associated with at least one energy efficiency intervention envisaged for action 4.1.1, under penalty of inadmissibility of the application.</p>
Implementation period	With Decrees n. 6187/2019 and n. 9656/2019 - the Notice and the related forms have been approved, the terms for the submission of applications have been set. 187 applications were received, of which 168 are eligible. With Decree 6145/2020 the Evaluation Commission was appointed whose work is in progress. It is expected that by the end of the year the provisional ranking will be defined and the definitive ranking will be defined in the first quarter of 2021 and by the second quarter the relative agreements will be signed with the beneficiary municipalities and the interventions will be started, presumably, within the second half of the same year. Furthermore, it is believed that the entire program of interventions can be realized within the closing date of the Regional Operational Program. The interventions in question provide for time schedules with a maximum duration of 36 months, subject to extensions.
Implementation body	Calabria Region and Municipalities beneficiaries of the contributions provided for in the Notice
Website	http://calabriaeuropa.regione.calabria.it/website/bando/386/index.html
Supported interventions	Insulation of building envelope + Upgrade of technical systems+Installation of RES systems+Installation of control systems
Average renovation level	Medium
Minimum energy efficiency criteria	They provide non-renewable primary energy savings compared to the pre-intervention situation not less than 20% for each building.
Brief description of scheme	The Public Notice for Building Efficiency is an opportunity for municipal administrations to make the building stock more efficient and reduce management costs, with important and significant reductions in the burden related to energy consumption charged to municipal budgets. This notice aims to achieve a significant jump in the energy class of public buildings identified from low / medium-low to medium-high levels
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	EU FUNDS [75%] - EUR. 16.065.658,50 FEE [25 %] - EUR. 5.355.219,50
Total budget	100 % - EUR. 21.420.878,00
Average annual budget	EUR 7,140,292,67
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	170
Total number of interventions/measures	168/170

Total number of applications	168 eligible out of 187 (On the basis of the current budget 40/50 interventions are estimated to be financed)
Achieved energy savings	It is estimated that the effects on energy savings that the municipalities will achieve, once the interventions have been completed, are more than 50%.
Achieved GHG reduction	Significant reductions in greenhouse gas (GHG) emissions are expected
Other benefits or impact	The type of works finalized by this Notice will allow a considerable reduction in the current expenditure incurred by the Municipalities for energy consumption

Name of scheme/programme	POR FESR Calabria 2014-2020 - PUBLIC NOTICE FOR THE FINANCING OF INTERVENTIONS FOR THE EFFICIENCY OF THE PUBLIC LIGHTING NETWORKS OF THE MUNICIPAL DECREES n. 3917/2017 - n. 6868/2017
Geographical level	Regional
Name of region or city	Calabria
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website + press release
Eligibility conditions	<p>The improvement interventions of the municipal public lighting networks provided for in this Public Notice, under Action 4.1.3 of the POR FESR Calabria 2014-2020, provide for the following works according to the following distinct lines of intervention:</p> <ol style="list-style-type: none"> 1) The first line of intervention supports the reduction of energy consumption in the public lighting systems of the Municipalities which, at the date of submission of the application, have already entrusted the integrated service for the operation, management and maintenance of the public lighting systems, financing further interventions than those already provided for in the basic contract. 2) The second line of intervention supports the implementation of energy efficiency interventions on public lighting in municipalities which, at the date of submission of the application, do not have ongoing assignments of the integrated service for the management, management and maintenance of public lighting systems and which intend modernizing plants In both lines of intervention, the eligible interventions are: <ul style="list-style-type: none"> • energy saving measures (replacement of lighting devices with more efficient ones; installation of flux regulators; installation of voltage stabilizers; etc.); • technological adaptation interventions (remote control systems; remote management systems; etc.); • technological evolution interventions for the provision of "smart city-oriented" services up to a maximum of 5% of the total contribution (solutions oriented to traffic control, weather or pollution control, etc.).
Implementation period	With Decrees no. 3917/2017 and n. 6868/2017, the public notice and the related forms were approved, the deadlines for the submission of applications set. 273 applications were received on line 2 of which n. 225 financed, also due to the scrolling of the rankings - the initial financial endowment went from EUR 35,000,000 to EUR 49,539,862.30. On line 1, 36 applications were funded. Currently, the interventions included in the program relating to line 2 are in an advanced state of development while the interventions on line 1 are less advanced. It is estimated that the interventions included in the program (lines 1 and 2) can be carried out within the deadlines set by the relative conventions and, in any case, within the limit set for the closure of the regional Operational Program. The interventions in question provide for time schedules with a maximum duration of 24 months, subject to extensions.
Implementation body	Calabria Region and Municipalities beneficiaries of the contributions provided for in the Notice
Website	http://calabriaeuropa.regione.calabria.it/website/bando/295/index.html
Supported interventions	Upgrade of technical systems + Installation of control systems
Average renovation level	Medium
Minimum energy efficiency criteria	The minimum requirement for access to the announcement is that they achieve savings of no less than 20% on the consumption of the section of the public lighting network on which action is taken. It is estimated that after interventions have been carried out, the average savings that the Bodies will achieve will be higher than 50/60% of the current energy consumption.
Brief description of scheme	<p>The public notice for the efficiency of municipal public lighting networks represents an opportunity to encourage municipalities to adopt high-efficiency technological solutions for the reduction of energy consumption of public lighting networks through this Notice which consists of two lines intervention, differentiated on the basis of the organizational and management model chosen by the Municipality.</p> <ol style="list-style-type: none"> 1) The first line of intervention supports the reduction of energy consumption in the public lighting systems of the Municipalities that, at the date of submission of the application, have already entrusted the integrated service for the management, management and maintenance of public lighting systems, financing additional interventions with respect to those already provided for in the basic contract. 2) The second line of intervention supports the implementation of energy efficiency interventions on public lighting in municipalities which, at the date of submission of the application, do not have ongoing assignments of the integrated service for the management, management and maintenance of public

	<p>lighting systems and which intend modernize the systems themselves through:</p> <ul style="list-style-type: none"> • a public works contract, as defined by art. 3 letter ll) of Legislative Decree no. 50/2016, or, • the award of a contract according to the EPC model (Energy Performance Contract) to an ESCo certified according to the UNI CEI 11352 standard <p>Funding on a single line of intervention is allowed. The choice in favor of the intervention line must be made before the signing of the agreement.</p>
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	EU FUNDS [75%] - [75%] - EUR. 37.154.896,73 STATE FUNDS [25 %] - EUR. 12.384.965,57
Total budget	[100%] - EUR. 49.539.862,30
Average annual budget	3,000,000.00
Total accrued investments	Approximately EUR 10,500,000.00 paid out
Average annual investments	3,000,000.00
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	261 (225+36)
Total number of interventions/measures	261
Total number of applications	261 eligible /309
Achieved energy savings	The effects on energy savings on the consumption of public lighting networks for municipalities are estimated in the order of 50/60%.
Achieved GHG reduction	Significant reductions in greenhouse gas emissions are expected
Other benefits or impact	The type of works finalized by this Notice will allow a considerable reduction in the current expenditure incurred by the Municipalities for energy consumption

Campania

Name of scheme/programme	POR FESR 2014 - 2020 Regione Campania
Geographical level	Regional
Name of region or city	Campania
Type of policy	Grant
Targeted sectors	Residential
Beneficiaries	Municipalities, Local Health Authorities, Hospitals and Autonomous Public Housing Institutions
Dissemination	Website
Eligibility conditions	The measures of m energy efficiency concerns the following eligibility requirements: be built on pre-existing buildings / networks; the interventions must not concern School Buildings; installations of energy production systems from renewable source to be used for self-consumption; buildings not to be used for economic activities; it is necessary to have an energy audit of the building under efficiency measurement it is necessary to have a Certificate of Energy Performance (APE) referred to in Article 11 of Directive 2010/31/EU
Implementation period	2019
Implementation body	Regione Campania
Website	https://pgt.regione.campania.it/portale/index.php/efficientamento-energetico
Supported interventions	Reduction in consumption; improvement of energy efficiency.
Average renovation level	High
Minimum energy efficiency criteria	N/A
Brief description of scheme	SUSTAINABLE ENERGY: Maximizing overall energy savings: reducing consumption in buildings and public facilities or for public use, including residential ones. Implementing an energy requalification of plants and structures productive, promoting the replacement of plants and machinery with newer and more efficient models. Rationalize the growth of diffuse sources of renewable energy by equipping the distribution networks with smart technologies.
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Region line of intervention 1 EUR 24.000.000=60 %

	Region line of intervention 2 EUR 4.000.000= 30 %
	Region line of intervention 3 EUR 12.000.000 = 10 %
Total budget	EUR 40,000,000.00
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	POR FESR 2014 - 2020 Regione Campania
Geographical level	Regional
Name of region or city	Campania
Type of policy	Grant
Targeted sectors	Residential
Beneficiaries	SMEs
Dissemination	Website
Eligibility conditions	Implementation of an energy efficiency intervention, such as machinery, plants and various equipment, brand new, and any monitoring systems o to achieve energy savings. Masonry works limited to those strictly necessary the implementation of the energy efficiency measures.
Implementation period	2018
Implementation body	Regione Campania
Website	http://porfesr.regione.campania.it/it/news/primo-piano/sostenibilita-energetica-e-competitivita-del-sistema-produttivo-avviso-per-la-realizzazione-di-piani-di-investimento-aziendali-per-l-efficientamento-energetico
Supported interventions	Action A: realization of energy audit aimed at energy consumption evaluation and achievable energy savings. Action B: realization of an energy efficiency intervention identified by the energy audit, with shorter payback time or equal to 4 years.
Average renovation level	High
Minimum energy efficiency criteria	N/A
Brief description of scheme	Action A: "Promotion of energy efficiency and use of renewable energy in companies " Action B: "Reduction of energy consumption and emissions in companies with the integration of renewable sources "
Budget, funding sources and investments achieved so far	
EU support	No, REGIONAL PROGRAM, co-financed by MISE, to support the carrying out energy audits, for SMEs
Funding sources	Region line of intervention 1 EUR 2.149.000= 69.94 % Region line of intervention 2 EUR 5.000.000= 30.06 %
Total budget	EUR 7,149,200.00
Impact achieved so far	
Level of overall impact of scheme	Unknown

Emilia Romagna

Name of scheme/programme	Fondo energia - Por Fesr 2014-2020, Asse 4, Azione 4.2.1 - Contributi per imprese in forma singola o associata
Geographical level	Regional
Name of region or city	Emilia-Romagna region (ITA)
Type of policy	Loan
Targeted sectors	Commercial
Beneficiaries	Business owners (large and SMEs)
Dissemination	Website, Press release, Net of industries and SMEs
Eligibility conditions	N/A
Implementation period	2014-2020
Implementation body	Emilia-Romagna region (ITA) + Financing institutes (Bank)
Website	https://energia.regione.emilia-romagna.it/piani-programmi-progetti
Supported interventions	<p>Interventions on instrumental buildings: expansion and / or renovation, construction works installed on the project;</p> <p>Purchase and installation, adaptation of machinery, plants, equipment, hardware;</p> <p>Acquisition of software and licenses;</p> <p>Technical / specialist consultancy provided to the investment project;</p> <p>Expenses for the preparation of energy diagnosis and / or design useful for the preparation of the intervention in question</p>
Average renovation level	Unknown
Minimum energy efficiency criteria	N/A
Brief description of scheme	<p>The Emilia-Romagna Region established with Regional Council resolution no. 791 of 30 May 2016 (pdf, 353.29 KB) modified with resolution no. 1537 of September 26, 2016 (pdf, 325.46 KB), the multi-purpose fund of subsidized finance with private partnership, which intends to support green economy interventions for the energy sector, aimed at promoting energy efficiency processes in companies and self-production of energy from renewable sources in order to increase its competitiveness.</p> <p>Beneficiaries</p> <p>The recipients of the contributions are represented by the companies, in single or associated form, by the area companies, by the managers of production areas and by the Esco for eligible interventions.</p> <p>Interventions allowed</p> <p>The following types of expenses are allowed:</p> <p>Interventions on instrumental buildings: expansion and / or renovation, construction works functional to the project;</p> <p>Purchase and installation, adaptation of machinery, plants, equipment, hardware;</p> <p>Acquisition of software and licenses;</p> <p>Technical / specialist consultancy functional to the investment project;</p> <p>Expenses for the preparation of energy diagnosis and / or design useful for the preparation of the intervention in question</p> <p>facilitation</p> <p>The Fund intervenes by granting subsidized rate loans with mixed funding, 70% of which derives from the public resources of the Fund (Por Fesr 2014-2020) and the remaining 30% from resources made available to the affiliated credit institutions.</p> <p>Loans, in the technical form of unsecured loan, can have a duration of between 36 and 96 months (including a maximum pre-amortization of 12 months), and an amount ranging from a minimum of 25 thousand EUR to a maximum of 750 thousand EUR.</p> <p>100% of the submitted project can be financed.</p> <p>The actual interest burden for the beneficiary company is equal to the weighted average between the following two rates:</p> <p>0.00% interest rate on the part of the loan with public funding (70%);</p> <p>Interest rate equal to the Euribor 6 months mmp + maximum spread of 4.75% for the part of financing with bank funding (30%).</p>
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Regione Emilia Romagna 70%
Total budget	36.000.000,00 euro

Impact achieved so far	
Level of overall impact of scheme	Unknown
Brief description of scheme	
	<p>Piano energetico regionale (Per) 2030 e Piano triennale di attuazione (Pta) 2017-2019</p> <p>Regional</p> <p>Emilia-Romagna region (ITA)</p> <p>Grant, loan, tax relief,</p> <p>Residential, commercial, public</p> <p>Homeowners, tenants, associations, public authorities, SMEs</p> <p>Website, Press release, Net of industries and SME, Mass Campaign, Training or toolkit</p> <p>N/A</p> <p>2017-2019</p> <p>Emilia-Romagna region (ITA)</p> <p>https://energia.regione.emilia-romagna.it/piani-programmi-progetti/programmazione-regionale/piano-energetico-regionale</p> <p>Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems</p> <p>Unknown</p> <p>N/A</p> <p>Regional energy plan</p> <p>Regional energy plan (Per) 2030 and three-year implementation plan (Pta) 2017-2019</p> <p>The Regional Energy Plan - approved with Legislative Assembly Resolution no. 111 of 1 March 2017 - sets the strategy and objectives of the Emilia-Romagna region for climate and energy until 2030 in terms of strengthening the green economy, saving and energy efficiency, developing renewable energies, transport interventions , research, innovation and training.</p> <p>In particular, the Plan adopts the European targets for 2020, 2030 and 2050 on climate and energy as drivers for the development of the regional economy. Therefore become strategic for the Region:</p> <p>the reduction of climate-changing emissions by 20% in 2020 and 40% in 2030 compared to 1990 levels;</p> <p>the 20% increase in 2020 and the 27% increase in 2030 in the coverage of consumption through the use of renewable sources;</p> <p>the increase in energy efficiency to 20% by 2020 and 27% by 2030.</p> <p>Transport, electrical and thermal, with their repercussions on the entire regional fabric, are the three sectors on which interventions will focus to achieve the objectives set by the European Union and implemented by Per.</p> <p>For the implementation of the new energy strategies implemented by the Region, the Per was supported by the three-year implementation plan 2017-2019, financed with resources equal to a total of 248.7 million euro: 104.4 million euro from the program Operational program of the European Regional Development Fund 2014-2020, 27.4 million EUR from the 2014-2020 Rural Development Program and 116.9 million EUR from additional resources from the Region.</p>
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	N/A
Total budget	250.000.000,00 euro
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Parma Progetto Energia - Gran Prestito
Geographical level	Municipal
Name of region or city	Parma, Italy
Type of policy	Loan
Targeted sectors	Residential
Beneficiaries	Homeowners
Dissemination	Website
Eligibility conditions	N/A
Implementation period	N/A
Implementation body	Municipality of Parma in partnership with Crédit Agricole Cariparma
Website	https://www.comune.parma.it
Supported interventions	Combination of interventions
Average renovation level	Unknown
Minimum energy efficiency criteria	The energy renovation must respect the requirements set by the national government to obtain 50% – 65% tax deduction.
Brief description of scheme	Loan up to EUR 50,000 with an interest rate of 2,9%, for a maximum period of 10 years, without putting a mortgage on the property. Loan given only at the end of the renovation works.
Budget, funding sources and investments achieved so far	
EU support	Linked to IEE Infinite Solutions project
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Riqualificazione energetica degli edifici pubblici - anno 2019
Geographical level	Municipal and Provincial
Name of region or city	Regione Emilia Romagna
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	2019
Implementation body	Regione Emilia Romagna
Website	https://energia.regione.emilia-romagna.it/@@search_bandi_form
Supported interventions	Combination of interventions
Budget, funding sources and investments achieved so far	
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Riqualificazione energetica degli edifici pubblici della aziende sanitarie regionali e di infrastrutture di ricarica per la mobilità elettrica dei veicoli aziendali
Geographical level	Regional
Name of region or city	Regione Emilia Romagna
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	N/A
Implementation body	Regione Emilia Romagna
Website	https://energia.regione.emilia-romagna.it/@@search_bandi_form
Supported interventions	Combination of interventions
Budget, funding sources and investments achieved so far	
EU support	N/A
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Contributo per la redazione del piano di azione per il clima e l'energia sostenibile
Geographical level	Regional
Name of region or city	Regione Emilia Romagna
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	N/A
Implementation body	Regione Emilia Romagna
Website	https://energia.regione.emilia-romagna.it/@@search_bandi_form
Supported interventions	Combination of interventions
Budget, funding sources and investments achieved so far	
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Riqualificazione energetica degli edifici pubblici - anno 2017
Geographical level	Municipal and Provincial
Name of region or city	Regione Emilia Romagna
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	2017
Implementation body	Regione Emilia Romagna
Website	https://energia.regione.emilia-romagna.it/@@search_bandi_form
Supported interventions	Combination of interventions
Budget, funding sources and investments achieved so far	
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Contributi per le diagnosi energetiche
Geographical level	Regional
Name of region or city	Regione Emilia Romagna
Type of policy	Grant
Targeted sectors	Industry
Beneficiaries	Business owners
Dissemination	Website
Eligibility conditions	N/A
Implementation period	N/A
Implementation body	Regione Emilia Romagna
Website	https://energia.regione.emilia-romagna.it/@@search_bandi_form
Supported interventions	Combination of interventions
Average renovation level	N/A
Minimum energy efficiency criteria	N/A
Brief description of scheme	N/A
Budget, funding sources and investments achieved so far	
EU support	N/A
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Fondo Energia
Geographical level	Regional
Name of region or city	Regione Emilia Romagna
Type of policy	Grant
Targeted sectors	Industry
Beneficiaries	Business owners
Dissemination	Website
Eligibility conditions	N/A
Implementation period	N/A
Implementation body	Regione Emilia Romagna
Website	https://energia.regione.emilia-romagna.it/@@search_bandi_form
Supported interventions	Combination of interventions
Budget, funding sources and investments achieved so far	
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Riqualificazione energetica degli edifici pubblici 2016
Geographical level	Regional
Name of region or city	Regione Emilia Romagna
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public Authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	2016
Implementation body	Regione Emilia Romagna
Website	https://energia.regione.emilia-romagna.it/@@search_bandi_form
Supported interventions	Combination of interventions
Budget, funding sources and investments achieved so far	

EU support	N/A
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Progetti di ricerca industriale strategica in ambito energetico
Geographical level	Regional
Name of region or city	Regione Emilia Romagna
Type of policy	Grant
Targeted sectors	Research
Beneficiaries	Research Laboratories
Dissemination	Website
Eligibility conditions	N/A
Implementation period	N/A
Implementation body	Regione Emilia Romagna
Website	https://energia.regione.emilia-romagna.it/@@search_bandi_form
Supported interventions	Combination of interventions
Budget, funding sources and investments achieved so far	
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Friuli Venezia Giulia

Name of scheme/programme	Regional Operational Programme (ROP) ERDF for Friuli-Venezia Giulia
Geographical level	Regional
Name of region or city	Friuli Venezia Giulia
Type of policy	Grant
Targeted sectors	Public and residential
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	2014-2020
Implementation body	Friuli Venezia Giulia
Website	https://www.regione.fvg.it/rafvg/cms/RAFVG/fondi-europei-fvg-internazionale/rop-erdf/
Supported interventions	Support energy efficiency, rational use of energy and RES integration
Average renovation level	Unknown
Minimum energy efficiency criteria	N/A
Brief description of scheme	The Regional Operational Programme (ROP) ERDF for Friuli-Venezia Giulia aims to create growth and jobs by boosting innovation and competitiveness, and improving the regional system of R&D. It shares the objectives defined by the Europe 2020 strategy for a smart, sustainable and inclusive growth. Overall, the programme aims to increase SMEs competitiveness and strengthen research and innovation. It also foresees actions to improve the energy efficiency in the region, as well as the development of urban areas. The ROP ERDF supports environmental sustainability in two manners: (i) directly, through interventions for energy efficiency funded by axis III; (ii) indirectly, through the application of specific selection criteria in the calls for the enterprises under Axes I and II, aimed at facilitating investments towards the development of "green technologies" and the adoption of sustainable production processes. Under Priority Axis III - Supporting the shift towards a low-carbon economy in all sectors - it is foreseen a specific objective addressing energy conversion of public buildings and RES integration, namely to support energy efficiency, rational use of energy and RES integration in public infrastructures, including public buildings, and in the residential sector.
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF
Funding sources	N/A
Total budget	57 M EUR
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	surface actually retrofitted 25.541,76 mq
Total number of interventions/measures	N/A
Total number of applications	N/A
Achieved energy savings	reduction in primary energy consumption of 22%, higher than the 15% target set by the ROP
Achieved GHG reduction	cut of 10.000 tons of CO ₂ emissions
Other benefits or impact	potential reduction of EUR 5 to 8 million of social costs caused by climate change in the next 25 years that could be used for other purposes by the Region

Lazio

Name of scheme/programme	POR FESR LAZIO 2014/2020
Geographical level	Regional
Name of region or city	Regione Lazio
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	Building and / or structure owned by the proposing Public Body (or by ownership of the management); Complete compliance and urban planning regularity; Regular census and registration of the property and / or structure
Implementation period	1 January 2014 - 31 December 2023
Implementation body	Regione Lazio
Website	www.lazioeuropa.it
Supported interventions	building envelope insulation, window replacement, plant system efficiency, internal artificial lighting system efficiency, energy control and monitoring systems in the building, RES systems (solar photovoltaic and solar thermal)
Average renovation level	Medium
Minimum energy efficiency criteria	Improvement of the building's energy performance index in kWh/m ² /year
Brief description of scheme	The selection of operations was aimed at rewarding proposals capable of maximizing the effectiveness of the result in terms of energy savings, increase in self-production quotas, improvement of the energy class. priority was given to the types of buildings with higher consumption and / or with the greatest potential for energy savings in relation to the necessary investments. The selection was made through a technical assessment procedure based on the results of the Energy Diagnosis or equivalent energy assessment document. The sequence of phases foreseen for the selection and evaluation of the interventions is as follows: application; preliminary selection; energy diagnosis; evaluation of merit.
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	European Sources (50%) National Sources (50%)
Total budget	EUR 77,912,000.00
Average annual budget	EUR 10,907,680.00
Total accrued investments	EUR 11,073,173.64
Average annual investments	EUR 2,768,293.41
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	EUR 113.00
Total number of interventions/measures	EUR 103.00
Total number of applications	EUR 294.00
Achieved energy savings	EUR 3,516,127.15
Achieved GHG reduction	EUR 533.40
Other benefits or impact	PM10 emissions reduction: 25,8 kg PM10/year, NOx emissions reduction: 822,7 kg NOx / year Days worked on building site: 34.592 days

Liguria

Name of scheme/programme	POR FESR 2014-2020 - ASSE 4 - AZIONE 4.1.1 - PROMOZIONE DELL'ECO-EFFICIENZA E RIDUZIONE DEI CONSUMI DI ENERGIA PRIMARIA NEGLI EDIFICI E STRUTTURE PUBBLICHE
Geographical level	Regional
Name of region or city	Regione Liguria
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	2016-2020
Implementation body	Regione Liguria - Italia
Website	https://www.regione.liguria.it/component/publiccompetitions/publiccompetition/2208-asse-4-azione-4-1-1-promozione-dell-eco-efficienza-e-riduzione-dei-consumi-di-energia-primaria-negli-edifici-e-strutture-pubbliche.html?view=publiccompetition&id=2208:asse-4-azione-4-1-1-promozione-dell-eco-efficienza-e-riduzione-dei-consumi-di-energia-primaria-negli-edifici-e-strutture-pubbliche&Itemid=
Supported interventions	Insulation of building envelope - upgrade of technical systems
Average renovation level	Unknown
Minimum energy efficiency criteria	N/A
Brief description of scheme	IMPROVEMENT OF ENERGY EFFICIENCY IN PUBLIC BUILDINGS - Municipality located in the Antola, Tigullio and Sol-Beigua inland valleys
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Region (70%) Local Authorities (30%)
Total budget	630k euro
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	POR FESR 2014-2020 - ASSE 4 - AZIONE 4.2.1 - INCENTIVI FINALIZZATI ALLA RIDUZIONE DEI CONSUMI ENERGETICI E DELLE EMISSIONI DI GAS CLIMALTERANTI E ALL'INSTALLAZIONE DI IMPIANTI DI PRODUZIONE DI ENERGIA DA FONTE RINNOVABILE PER L'AUTOCONSUMO
Geographical level	Regional
Name of region or city	Regione Liguria
Type of policy	Grant 40% and Loan 40% of total amount - max 400k euro every single intervention
Targeted sectors	Small and Medium Enterprise
Beneficiaries	Business owners
Dissemination	Website
Eligibility conditions	N/A
Implementation period	2018 - 2020
Implementation body	Regione Liguria - Italia
Website	https://www.regione.liguria.it/component/publiccompetitions/publiccompetition/1651-bando-fesr-azione-4-2-1energia-imprese.html?view=publiccompetition&id=1651:bando-fesr-azione-4-2-1energia-imprese&Itemid=
Supported interventions	Upgrade of technical systems
Average renovation level	Unknown
Minimum energy efficiency criteria	N/A
Brief description of scheme	SMEs carrying out energy efficiency and energy production plant from renewable sources projects
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Region (80%) Private financing (20%)
Total budget	8M euro
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	BANDO POR FESR 2014-2020 - ASSE 4 - AZIONE 4.1.1 - PROMOZIONE DELL'ECO-EFFICIENZA E RIDUZIONE CONSUMI DI ENERGIA PRIMARIA NEGLI EDIFICI E STRUTTURE PUBBLICHE - COMUNI SUPERIORI AI 2 MILA ABITANTI
Geographical level	Regional
Name of region or city	Regione Liguria
Type of policy	Grant 70% of total amount
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	2014 - 2019
Implementation body	Regione Liguria - Italia
Website	https://www.regione.liguria.it/component/publiccompetitions/publiccompetition/1590-por-fesr-1014-2020-asse4-azione-411.html?view=publiccompetition&id=1590:por-fesr-1014-2020-asse4-azione-411&Itemid=
Supported interventions	Insulation of building envelope - installation of control systems
Average renovation level	Unknown
Minimum energy efficiency criteria	Minimum improvement of two energy classes
Brief description of scheme	Renovation of buildings, installation of control systems (smart buildings). Municipality with more than 2000 inhabitants. Except for Genova, Imperia, La Spezia, Savona and Sanremo
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Region (70%) Local authorities (30%)
Total budget	5M euro
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Por Fesr 2014-2020 - Asse 4 - Azione 4.1.1 - Promozione Dell'eco-Efficienza E Riduzione Dei Consumi Di Energia Primaria Negli Edifici E Strutture Pubbliche - Comuni Con Popolazione Inferiore A 2000 Abitanti
Geographical level	Regional
Name of region or city	Regione Liguria
Type of policy	Grant 70% of total amount
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	2014 - 2019
Implementation body	Regione Liguria - Italia
Website	https://www.regione.liguria.it/component/publiccompetitions/publiccompetition/1285-por-fesr-2014-2020-bando-asse-4-azione-4-1-1-energia-piccoli-comuni.html?view=publiccompetition&id=1285:por-fesr-2014-2020-bando-asse-4-azione-4-1-1-energia-piccoli-comuni&Itemid=
Supported interventions	Insulation of building envelope - installation of control systems
Average renovation level	Unknown
Minimum energy efficiency criteria	Minimum improvement of one energy class
Brief description of scheme	Renovation of buildings, installation of control systems (smart buildings). Municipality with less than 2000 inhabitants.
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Region (70%) Local authorities (30%)
Total budget	2M euro
Impact achieved so far	
Level of overall impact of scheme	Unknown

Lombardia

Name of scheme/programme	Bando Efficienza Energetica BE2
Geographical level	Municipal
Name of region or city	Milan
Type of policy	Public grant, Low interest-rate loan with public guarantee
Targeted sectors	at least 70% of the total surface should be residential
Beneficiaries	Homeowners, Housing associations, Public authorities, Business owners
Dissemination	Website
Eligibility conditions	N/A
Implementation period	2018-ongoing
Implementation body	Milan Local authority
Website	https://www.comune.milano.it/aree-tematiche/ambiente/energia/contributi-per-l-efficienza-energetica-degli-edifici
Supported interventions	Two types of interventions are eligible: 1) a combination between the insulation of building envelop and the upgrade of technical system (heating systems) (15% of the costs will be covered by the program), 2) upgrade of technical system (heating system) (5% of the costs will be covered by the program)
Average renovation level	Medium
Minimum energy efficiency criteria	Criteria are set only for the heating systems replacement
Brief description of scheme	The program aims to encourage energy efficiency interventions in residential buildings, with a particular focus on heating systems replacement. The Municipality provides a public grant covering part of costs, plus it supports homeowners in accessing low-interest loans, by setting up an agreement with banks and financial institutions. The program is compatible with other types of incentives, like eco-bonus.
Budget, funding sources and investments achieved so far	
EU support	No. The municipality provides a grant covering 30% of the costs, plus it made up an agreement with a list of financial institutions, operating in the region and beyond. The beneficiaries will receive low interest-rate loans with a public guarantee, provided by financial institutions.
Funding sources	Municipality Between 20% to 30% for integrated EE interventions. Between 5% to 30% for heating systems replacement Financial institution (Depending on the work costs and bank financial contract)
Total budget	23.250.000 (public)
Average annual budget	11.625.000 (public)
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	N/A
Total number of interventions/measures	6.000 (estimated)
Total number of applications	N/A
Achieved energy savings	N/A
Achieved GHG reduction	143.000 (ton/year)
Other benefits or impact	PM10 reduction (270 kg/year)

Name of scheme/programme	Territori Virtuosi
Geographical level	Regional
Name of region or city	Lombardy
Type of policy	Technical Assistance for investment programmes
Targeted sectors	Public and non profit organisations
Beneficiaries	Public authorities and non profit organisations
Dissemination	Website, direct mailing, phone
Eligibility conditions	Single Municipality/City or group of Municipalities with at least 10.000 citizens
Implementation period	01/09/2017 - ongoing
Implementation body	Fondazione Cariplo (Philanthropic foundation with bank origin)
Website	https://www.fondazionecariplo.it/en/index.html
Supported interventions	Technical, legal and financial assistance
Average renovation level	Medium
Minimum energy efficiency criteria	30%
Brief description of scheme	Fondazione Cariplo directly provides Technical, legal and financial assistance to public authorities for energy efficiency and renewable energy investments (alike ELENA of EIB). Fondazione Cariplo supports the public authorities in the development of public tender and in signing Energy Performance Contracts with Energy Service Company (ESCos). Fondazione Cariplo also fosters the grouping of public authorities in order to enlarge the investments. This scheme is similar to ELENA initiative of European Investment Bank (EIB)
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF. The Lombardy Region granted one of the public authorities (Metropolitan City of Milan) involved in Territori Virtuosi
Funding sources	ERDF (14.2 million EUR) Energy Service Companies (equity) National incentives ("Conto Termico 2.0" requested by ESCos)
Total accrued investments	75 million EUR (estimate. The public tenders are ongoing)
Average annual investments	25 million EUR (estimate)
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	450
Total number of interventions/measures	3 call for interests
Total number of applications	8 (26 local authorities and 7 non-profit organisations)
Achieved energy savings	56.000 MWh (estimate)
Achieved GHG reduction	18.000 tonnes of CO2 equivalent (estimate)
Other benefits or impact	N/A

Name of scheme/programme	Comuni efficienti e rinnovabili
Geographical level	Regional
Name of region or city	Lombardy
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	The investment programmes require a leverage factor of at least 10
Implementation period	2014-2016
Implementation body	Fondazione Cariplo (Philanthropic foundation with bank origin)
Website	https://www.fondazionecariplo.it/en/index.html
Supported interventions	Technical, legal and financial assistance
Average renovation level	Low
Minimum energy efficiency criteria	20%
Brief description of scheme	Fondazione Cariplo granted small and medium municipalities for developing Technical, legal and financial assistance for local energy efficiency and renewable energy investments. The public authorities developed public tenders for Energy Service Company (ESCos).
Budget, funding sources and investments achieved so far	
EU support	No

Funding sources	Energy Service Companies (equity)
	National incentives (Conto Termico 2.0 requested by ESCos)
Total accrued investments	50 million EUR (estimate. Some public tenders are ongoing)
Average annual investments	7 million EUR

Impact achieved so far

Level of overall impact of scheme	Low
Total number of buildings	300
Total number of interventions/measures	3 call for projects
Total number of applications	42 (122 small and medium municipalities)
Achieved energy savings	30.000 MWh (estimate)
Achieved GHG reduction	10.000 tonnes of CO2 equivalent (estimate)
Other benefits or impact	N/A

Name of scheme/programme	POR FESR 2014-20 - Bando SAP
Geographical level	Regional
Name of region or city	Lombardy
Type of policy	Grant
Targeted sectors	social housing
Beneficiaries	local authorities and social housing companies
Dissemination	website, tailored advertising and press release
Eligibility conditions	Social housing buildings
Implementation period	2020-2023
Implementation body	Regional Authority
Website	https://www.fesr.regione.lombardia.it/wps/portal/PROUE/FESR/Bandi/DettaglioBando/Agevolazioni/bando-efficientamento-energetico-fabbricati-aler
Supported interventions	renovation should involve insulation of at least 25% of the building envelope and may involve also installation of RES, upgrade of technical systems
Average renovation level	Medium
Minimum energy efficiency criteria	Non-renewable energy performance requirement has to be cut by minimum 30%; 25% of the building envelope has to be renovated
Brief description of scheme	Renovation projects of public buildings are selected taking into account energy savings, the ratio between costs and energy savings and bioarchitectural criteria. Maximum grant is up to 100% of total costs

Budget, funding sources and investments achieved so far

EU support	Yes, funded by ERDF 2014-20
Funding sources	ERDF (100%)
Total budget	15 million EUR
Average annual budget	N/A
Total accrued investments	15 million EUR
Average annual investments	N/A

Impact achieved so far

Level of overall impact of scheme	Low
Total number of buildings	37 so far
Total number of interventions/measures	37
Total number of applications	N/A
Achieved energy savings	6,4 GWh/Year
Achieved GHG reduction	1,2 kt CO2eq/Year
Other benefits or impact	energy saving by social housing tenants

Name of scheme/programme	POR FESR 2014-20 - Bandi Piccoli Comuni
Geographical level	Regional
Name of region or city	Lombardy
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	website, tailored advertising and press release
Eligibility conditions	Public buildings owned by local authorities of small dimension (less than 1000 inhabitants) in bad conditions from the energetic point of view
Implementation period	2017-2022
Implementation body	Regional Authority
Website	https://www.fesr.regione.lombardia.it/wps/portal/PROUE/FESR/Bandi/DettaglioBando/Agevolazioni/bando--riqualificazione-energetica-piccoli-comuni https://www.fesr.regione.lombardia.it/wps/portal/PROUE/FESR/Bandi/DettaglioBando/Agevolazioni/bando--a-graduatoria-per-efficientamento-energetico-piccoli-comuni
Supported interventions	renovation should involve insulation of at least 25% of the building envelope and may involve also installation of RES, upgrade of technical systems
Average renovation level	Medium
Minimum energy efficiency criteria	Non-renewable energy performance requirement has to be cut by minimum 30%; 25% of the building envelope has to be renovated
Brief description of scheme	Renovation projects of public buildings are selected taking into account energy savings, the ratio between costs and energy savings and bioarchitectural criteria. Maximum grant is 250.000 EUR, 90% of total costs
Budget, funding sources and investments achieved so far	
EU support	Yes, funded by ERDF 2014-20
Funding sources	ERDF (100%)
Total budget	20 ML EUR
Average annual budget	N/A
Total accrued investments	24 ML EUR
Average annual investments	N/A
Impact achieved so far	
Level of overall impact of scheme	Low
Total number of buildings	98 so far
Total number of interventions/measures	98
Total number of applications	N/A
Achieved energy savings	13,8 GWh/Year
Achieved GHG reduction	2,4 kt CO2eq/Year
Other benefits or impact	energy saving by public authorities

Name of scheme/programme	POR FESR 2014-20 - Fondo Regionale Efficienza Energetica (FREE)
Geographical level	Regional
Name of region or city	Lombardy
Type of policy	combination of grant and loan
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	website, tailored advertising and press release
Eligibility conditions	Public buildings owned by local authorities and in bad conditions from the energetic point of view
Implementation period	2016-2022
Implementation body	Regional Authority
Website	https://www.fesr.regione.lombardia.it/wps/portal/PROUE/FESR/Bandi/DettaglioBando/Agevolazioni/bando-free; https://www.fesr.regione.lombardia.it/wps/portal/PROUE/FESR/Bandi/DettaglioBando/Agevolazioni/nuovo-bando-free-efficientamento-energetico-edifici-pubblici
Supported interventions	building have to be transformed in NZEB
Average renovation level	High
Minimum energy efficiency criteria	Non-renewable energy performance requirement has to be cut by minimum 30%, building has to be transformed in NZEB
Brief description of scheme	Renovation projects of public buildings are selected taking into account energy savings, the ratio between costs and energy savings and bioarchitectural criteria. Expenses has to be minimum 1.000.000 EUR. The selected projects receive a grant of 30% of total costs, and a loan of 40% of total costs.
Budget, funding sources and investments achieved so far	
EU support	Yes, funded by ERDF 2014-20
Funding sources	ERDF (100%)
Total budget	34, 5 ML EUR
Average annual budget	N/A
Total accrued investments	50 ML EUR
Average annual investments	N/A
Impact achieved so far	
Level of overall impact of scheme	Low
Total number of buildings	40 so far
Total number of interventions/measures	25
Total number of applications	N/A
Achieved energy savings	44 GWh/Year
Achieved GHG reduction	7,8 kt CO2eq/Year
Other benefits or impact	energy saving by public authorities

Name of scheme/programme	Incentives for substitution of biomass heating generators
Geographical level	Municipality/city
Name of region or city	Mantova Province
Type of policy	Grant
Targeted sectors	Residential
Beneficiaries	Homeowners
Dissemination	Website
Eligibility conditions	Heating generator below 35kW nominal power, installed before 1st january 2020 and below 3 stars class (according to italian classification). Is mandatory that the new installation is also funded by the national incentive "Conto Termico"
Implementation period	2020-2021
Implementation body	Mantova Province
Website	http://www.provincia.mantova.it/context_bandi.jsp?ID_LINK=211&area=6&id_context=20040
Supported interventions	Upgrade of technical systems
Average renovation level	High
Minimum energy efficiency criteria	The new biomass heating generator should belong to the 4stars class (the top of the classification) and guarantee PM concentration below 20mg/Nm3
Brief description of scheme	Grant requests are on-line, uploading a list of specific documents. The grant is between 40% and 50% of the grant received by Conto Termico. The percentage depend on PM emissions

	(40% when is below 20mg/Nm ³ ; 45%, 15mg/Nm ³ ; 50%, 10mg/Nm ³).
Budget, funding sources and investments achieved so far	
EU support	No. Programm "FORAGRI" funded by the Minestry of Environment
Funding sources	Mantova Province (79%)
	Lombardy Region (21%)
Total budget	236926
Average annual budget	50000/185000
Impact achieved so far	
Level of overall impact of scheme	Unknown

Marche

Name of scheme/programme	Regional Operational Program - Fund European Regional Development 2014/2020
Geographical level	Regional
Name of region or city	Marche region
Type of policy	Grant, Loan
Targeted sectors	Commercial: large and small medium enterprises
Beneficiaries	Business owners
Dissemination	website, press, seminars, Net of industries and SMEs
Eligibility conditions	N/A
Implementation period	2014-2020
Implementation body	Marche region + Financing institutes (Bank)
Website	https://www.regione.marche.it/Entra-in-Regione/Fondi-Europei/FESR/Programma-Operativo-Por-FESR
Supported interventions	energy efficiency and production of energy from renewable sources
Average renovation level	Unknown
Minimum energy efficiency criteria	n.a.
Brief description of scheme	The Marche Region with Administrative Resolution no. 126/2015 of 03/31/2015 definitively approved, pursuant to article 6, paragraph 4, of the regional law of 2 October 2006, no. 14, the Regional Operational Program - European Regional Development Fund 2014/2020. This program provides for the implementation of Axis 4 "Supporting the transition to a low-emission economy. Carbon in all sectors "with Action 12.1" Incentives aimed at reducing energy consumption and climate-altering gas emissions of companies and production areas including the installation of energy production plants from renewable sources for self-consumption, giving priority to high efficiency technologies ". As part of the POR, the Marche Region has provided for the establishment of the "Energy and Mobility Fund", a financial instrument managed by the financial intermediary Artigiancassa S.p.a. as per the decree of definitive award of the manager of PF National and community programming - ERDF and FSE Management Authority n. 82 / poc of 09/06/2016. With the Directorial Decree of 12 May 2015, the Ministry of Economic Development - issued the public notice for the co-financing of programs presented by the Regions in accordance with the provisions of paragraph 9 of art. 8 of Legislative Decree. 102/2014. With DGR n. 1202 of 10/10/2016, the agreement was approved with the Ministry of Economic Development for the implementation of the regional program to support the implementation of energy audits or the adoption of ISO 50001 certification by SMEs. Following the signing of the Convention, the Marche Region obtained the allocation of funds intended to incentivize the implementation of energy audits or the adoption of the ISO 50001 management system. The Marche Region, through the announcement, intends to promote the reduction of climate-altering emissions, and at the same time it intends to increase the competitiveness of companies operating in the regional territory by favoring a reduction in their energy costs. This goal is pursued using, as a form of support, a financial instrument Fondo Energia e Mobilità which provides for the provision of subsidized loans combined with a non-repayable grant.
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Marche region (70%) Partnership private financing (30%)
Total budget	9,836,644
Impact achieved so far	
Level of overall impact of scheme	Unknown

Molise

Name of scheme/programme	Incentivi finalizzati alla riduzione dei consumi energetici e delle emissioni di gas climalteranti delle imprese PRIMA EDIZIONE
Geographical level	Regional
Name of region or city	Regione Molise
Type of policy	Grant
Targeted sectors	Companies and productive entities
Beneficiaries	Business owners
Dissemination	website, press release
Eligibility conditions	N/A
Implementation period	since 30/04/2018
Implementation body	Region
Website	http://moliseineuropa.regione.molise.it/node/108
Supported interventions	Efficiency of building infrastructures, production processes and use of renewable energy sources
Average renovation level	Medium
Minimum energy efficiency criteria	energy saving > 0,043 tep/1000euro of investment
Brief description of scheme	Incentives aimed at reducing energy consumption and climate-altering gas emissions of companies and production areas including the installation of renewable energy production plants for self-consumption, giving priority to high efficiency
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Regional contribution EUR 3.177.028,00 = 40 % Private funding EUR 4.765.542,00 = 60%
Total budget	7,942,570,00 EUR
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	19

Name of scheme/programme	Incentivi finalizzati alla riduzione dei consumi energetici e delle emissioni di gas climalteranti delle imprese SECONDA EDIZIONE
Geographical level	Regional
Name of region or city	Regione Molise
Type of policy	Grant
Targeted sectors	Companies and productive entities
Beneficiaries	Business owners
Dissemination	website, press release
Eligibility conditions	N/A
Implementation period	since 30/09/2018
Implementation body	Region
Website	http://moliseineuropa.regione.molise.it/node/165
Supported interventions	Efficiency of building infrastructures, production processes and use of renewable energy sources
Average renovation level	Medium
Minimum energy efficiency criteria	energy saving > 0,043 tep/1000euro of investment
Brief description of scheme	Incentives aimed at reducing energy consumption and climate-altering gas emissions of companies and production areas including the installation of renewable energy production plants for self-consumption, giving priority to high efficiency
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Regional contribution EUR 1.535.243,95 = 40 % Private funding EUR 2.302.864,85 = 60%
Total budget	3.838.108,80 EUR
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	34

Name of scheme/programme	Investimenti finalizzati alla riduzione dei consumi negli edifici e nelle infrastrutture pubbliche
Geographical level	Regional
Name of region or city	Regione Molise
Type of policy	Loan
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	N/A
Implementation period	2020
Implementation body	Region
Website	http://www.finmolise.it/bandoenergia.html
Supported interventions	Efficiency of building infrastructures, production processes and use of renewable energy sources
Average renovation level	Low
Minimum energy efficiency criteria	energy saving > 0,043 tep/1000euro of investment
Brief description of scheme	Installation of power generation systems from source renewable to be allocated to self-consumption associated with interventions of energy efficiency by giving priority to the use of high technology efficiency
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Rotary fund EUR 6.700.000,00 = 100 %
Total budget	6,700,000,00 EUR
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	4

Piemonte

Name of scheme/programme	Territori Virtuosi
Geographical level	Regional
Name of region or city	Provinces of Novara and Verbania
Type of policy	Technical Assistance for investment programmes
Targeted sectors	Public and non profit organisations
Beneficiaries	Public authorities and non profit organisations
Dissemination	Website, direct mailing, phone
Eligibility conditions	Single Municipality/City or group of Municipalities with at least 10.000 citizens
Implementation period	01/09/2017 - ongoing
Implementation body	Fondazione Cariplo (Philanthropic foundation with bank origin)
Website	https://www.fondazionecariplo.it/en/index.html
Supported interventions	Technical, legal and financial assistance
Average renovation level	Medium
Minimum energy efficiency criteria	30%
Brief description of scheme	Fondazione Cariplo directly provides Technical, legal and financial assistance to public authorities for energy efficiency and renewable energy investments (alike ELENA of EIB). Fondazione Cariplo supports the public authorities in the development of public tender and in signing Energy Performance Contracts with Energy Service Company (ESCos). Fondazione Cariplo also fosters the grouping of public authorities in order to enlarge the investments. This scheme is similar to ELENA initiative of European Investment Bank (EIB)
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF
Funding sources	ERDF (14.2 milion EUR) Energy Service Companies (equity) National incentives ("Conto Termico 2.0" requested by ESCos)
Total budget	N/A
Average annual budget	N/A
Total accrued investments	75 milion EUR (estimate. The public tenders are ongoing)
Average annual investments	25 milion EUR (estimate)
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	450
Total number of interventions/measures	3 call for interests
Total number of applications	8 (26 local authorities and 7 non profit organisations)
Achieved energy savings	56.000 MWh (estimate)
Achieved GHG reduction	18.000 tonnes of CO2 equivalent (estimate)
Other benefits or impact	N/A

Name of scheme/programme	Comuni efficienti e rinnovabili
Geographical level	Regional
Name of region or city	Provinces of Novara and Verbania
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	The investment programmes require a leverage factor of at least 10
Implementation period	2014-2016
Implementation body	Fondazione Cariplo (Philanthropic foundation with bank origin)
Website	https://www.fondazionecariplo.it/en/index.html
Supported interventions	Technical, legal and financial assistance
Average renovation level	Low
Minimum energy efficiency criteria	20%
Brief description of scheme	Fondazione Cariplo granted small and medium municipalities for developing Technical, legal and financial assistance for local energy efficiency and renewable energy investments. The public authorities developed public tenders for Energy Service Company (ESCos).
Budget, funding sources and investments achieved so far	
EU support	No

Funding sources	Energy Service Companies (equity)
	National incentives (Conto Termico 2.0 requested by ESCos)
Total budget	N/A
Average annual budget	N/A
Total accrued investments	50 million EUR (estimate. Some public tenders are ongoing)
Average annual investments	7 million EUR
Impact achieved so far	
Level of overall impact of scheme	Low
Total number of buildings	300
Total number of interventions/measures	3 call for projects
Total number of applications	42 (122 small and medium municipalities)
Achieved energy savings	30.000 MWh (estimate)
Achieved GHG reduction	10.000 tonnes of CO2 equivalent (estimate)
Other benefits or impact	N/A

Name of scheme/programme	POR FESR 2014-20
Geographical level	Regional
Name of region or city	Piemonte
Type of policy	Grant+Loan
Targeted sectors	education, sport and recreation, public offices
Beneficiaries	Public authorities
Dissemination	website, press, mail, seminars
Eligibility conditions	Public buildings for public purposes
Implementation period	2017-2023
Implementation body	Regional authority
Website	All&field_target_target_id=3&field_risorse_target_id=13&field_stato_target_id=20&page=1">https://bandi.regione.piemonte.it/tutti?field_temi_target_id>All&field_target_target_id=3&field_risorse_target_id=13&field_stato_target_id=20&page=1
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High
Minimum energy efficiency criteria	40.00%
Brief description of scheme	Action IV.4c.1.1 Promotion of energy efficiency investments in order to reduce primary energy consumption of individual or group of public buildings: renovation of building envelope and windows, installation of intelligent remote control systems and smart energy management and monitoring devices. A mix of interventions is encouraged. Action IV.4c.1.2 Installation of renewable energy sources plants to be used for the self-consumption of public buildings. These measures must be associated and/or complementary to preliminary energy efficiency investments.
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	FESR 40% State member 28% Regional 12% Beneficiaries 20%
Total budget	22,4 ML Euro
Average annual budget	N/A
Total accrued investments	28.4
Average annual investments	N/A
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	21
Total number of interventions/measures	81
Total number of applications	20
Achieved energy savings	60.00%
Achieved GHG reduction	2888 ton
Other benefits or impact	222Kg PM10/1133 kg Nox

Name of scheme/programme	POR FESR 2014-20
Geographical level	Regional
Name of region or city	Piemonte
Type of policy	Grant
Targeted sectors	Multi family houses
Beneficiaries	Public authorities
Dissemination	Website, press release
Eligibility conditions	Public buildings
Implementation period	2017-2023
Implementation body	Regional authority
Website	https://bandi.regione.piemonte.it/contributi-finanziamenti/riduzione-consumi-energetici-utilizzo-fonti-rinnovabili-ledilizia-abitativa-sociale-atc
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High
Minimum energy efficiency criteria	0,4 kWh/EUR
Brief description of scheme	Action IV.4c.1.1 Promotion of energy efficiency investments in order to reduce primary energy consumption of individual or group of public buildings: renovation of building envelope and windows, installation of intelligent remote control systems and smart energy management and monitoring devices. A mix of interventions is encouraged. Action IV.4c.1.2 Installation of renewable energy sources plants to be used for the self-consumption of public buildings. These measures must be associated and/or complementary to preliminary energy efficiency investments.
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	FESR 45%
Total budget	8,3 Ml euro
Average annual budget	N/A
Total accrued investments	9,1 ml euro
Average annual investments	N/A
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	10
Total number of interventions/measures	14
Total number of applications	7
Achieved energy savings	2.895.234 Kwh
Achieved GHG reduction	689 ton
Other benefits or impact	533 kg Nox/10 PM10

Name of scheme/programme	POR FESR 2014-20
Geographical level	Regional
Name of region or city	Piemonte
Type of policy	Grant
Targeted sectors	Hospitals
Beneficiaries	Public authorities
Dissemination	website, press, mail, seminars
Eligibility conditions	Public buildings
Implementation period	2017-2023
Implementation body	Regional authority
Website	https://bandi.regione.piemonte.it/contributi-finanziamenti/riduzione-dei-consumi-energetici-negli-edifici-nelle-strutture-pubbliche-patrimonio-ospedaliero
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High
Minimum energy efficiency criteria	20.00%
Brief description of scheme	Action IV.4c.1.1 Promotion of energy efficiency investments in order to reduce primary energy consumption of individual or group of public buildings: renovation of building envelope and windows, installation of intelligent remote control systems and smart energy

	management and monitoring devices. A mix of interventions is encouraged. Action IV.4c.1.2 Installation of renewable energy sources plants to be used for the self-consumption of public buildings. This measure must be associated and/or complementary to preliminary energy efficiency investments.
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Budget, funding sources and investments achieved so far

EU support	Yes, FESR
Funding sources	FESR 40% Member State 28% Regional 12% Beneficiaries 20%
Total budget	13,2 mil di Euro
Average annual budget	N/A
Total accrued investments	21,1 Mil di Euro
Average annual investments	N/A

Impact achieved so far

Level of overall impact of scheme	Unknown
Total number of buildings	5
Total number of interventions/measures	17
Total number of applications	5
Achieved energy savings	33.00%
Achieved GHG reduction	3210 ton
Other benefits or impact	19887Kg NOX year - 67,51Kg PM10 year

Name of scheme/programme	POR FESR 2014-20
Geographical level	Regional
Name of region or city	Piemonte
Type of policy	Grant
Targeted sectors	Education, offices, sport
Beneficiaries	local authorities (maximum 5000 inhabitants)
Dissemination	website, press, mail, seminars
Eligibility conditions	Public buildings
Implementation period	2017-2023
Implementation body	Regional authority
Website	All&field_target_target_id=3&field_risorse_target_id=13&field_stato_target_id=20&page=1">https://bandi.regione.piemonte.it/tutti?field_temi_target_id>All&field_target_target_id=3&field_risorse_target_id=13&field_stato_target_id=20&page=1
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High
Minimum energy efficiency criteria	reduction of minimum 40% of energy consumption
Brief description of scheme	Action IV.4c.1.1 Promotion of energy efficiency investments in order to reduce primary energy consumption of individual or group of public buildings: renovation of building envelope and windows, installation of intelligent remote control systems and smart energy management and monitoring devices. A mix of interventions is encouraged. Action IV.4c.1.2 Installation of renewable energy sources plants to be used for the self-consumption of public buildings. These measures must be associated and/or complementary to preliminary energy efficiency investments.
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	FESR 40%
	Member State 28%
	Regional 12%
	Beneficiaries 20%
Total budget	18,8 mil di Euro
Total accrued investments	24,5 Mil di Euro
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	94
Total number of interventions/measures	94
Total number of applications	76
Achieved energy savings	54.00%
Achieved GHG reduction	5085 ton
Other benefits or impact	1981 KG Nox and 158 kg PM10 saved

Puglia

Name of scheme/programme	Sustainability certification of residential and non-residential buildings pursuant to art. 9 of the regional law 10 June 2008, n. 13 "Standards for sustainable living"
Geographical level	Regional
Name of region or city	Puglia
Type of policy	Incentives for all residential and non-residential buildings
Targeted sectors	residential and non-residential buildings
Beneficiaries	homeowners and public authorities
Dissemination	Website
Implementation period	since 2008
Implementation body	municipalities and region
Website	http://old.regione.puglia.it/documents/7241131/9868994/2.+Guida_L.R.+13-2008.pdf/421b08ce-080e-4829-9169-0eddafb5d8a4
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High
Minimum energy efficiency criteria	performance level 2
Brief description of scheme	Regional law 10 June 2008, n. 13 "Standards for sustainable living" provides in art. 9 the certification of buildings' sustainability. The Certificate of Environmental Sustainability, which takes into account the data and results reported in the Energy Certificate, certifies the level of performance of the buildings' environmental sustainability. The incentives that can be obtained are based on this sustainability level (incentives are detailed on the resolution of the Regional Council - Giunta Regionale - of 7 August 2020, n. 1304.) The incentives translate into increases in airspace or a reduction in construction costs and secondary urbanization costs.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	High

Name of scheme/programme	Sustainability certification of residential and non-residential buildings pursuant to art. 9 of the regional law 10 June 2008, n. 13 "Standards for sustainable living"
Geographical level	Regional
Name of region or city	Puglia
Type of policy	Incentives for all residential and non-residential buildings
Targeted sectors	residential and non-residential buildings
Beneficiaries	homeowners and public authorities
Dissemination	Website
Eligibility conditions	NA
Implementation period	since 2008
Implementation body	municipalities and region
Website	http://old.regione.puglia.it/documents/7241131/9868994/2.+Guida_L.R.+13-2008.pdf/421b08ce-080e-4829-9169-0eddafb5d8a4
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High
Minimum energy efficiency criteria	performance level 2
Brief description of scheme	Regional law 10 June 2008, n. 13 "Standards for sustainable living" provides in art. 9 the certification of buildings' sustainability. The Certificate of Environmental Sustainability, which takes into account the data and results reported in the Energy Certificate, certifies the level of performance of the buildings' environmental sustainability. The incentives that can be obtained are based on this sustainability level (incentives are detailed on the resolution of the Regional Council - Giunta Regionale - of 7 August 2020, n. 1304.) The incentives translate into increases in airspace or a reduction in construction costs and secondary urbanization costs.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Impact achieved so far	

Level of overall impact of scheme	High
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	High

Name of scheme/programme	Environmental protection aid
Geographical level	Regional
Name of region or city	Puglia
Type of policy	Loan
Targeted sectors	micro, small and medium-sized enterprises
Beneficiaries	Business owners
Dissemination	Website
Eligibility conditions	Candidates at the date of submission of the application for subsidy must be duly constituted and registered in the Business Register
Implementation period	since 2017
Implementation body	In-house company Puglia Sviluppo
Website	http://www.sistema.puglia.it/portal/page/portal/SistemaPuglia/info?id=3F4006C91689C1FC
Supported interventions	interventions for energy efficiency, high-efficiency cogeneration, production of energy from renewable sources
Average renovation level	Medium
Minimum energy efficiency criteria	a minimum of 2% primary energy savings
Brief description of scheme	Interventions can be carried out on buildings located in the territory of the Puglia region and may concern: i) energy efficiency, ii) high-efficiency cogeneration, iii) production of energy from renewable sources up to a maximum of 70% of the energy consumed on average in the three calendar years prior to the date of submission of the application and, in any case, up to the limit maximum of 500 kW.
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF
Funding sources	N/A
Total budget	EUR 60,000,000.00
Average annual budget	N/A
Total accrued investments	N/A
Average annual investments	N/A
Impact achieved so far	

Level of overall impact of scheme	Unknown
Name of scheme/programme	Sustainable energy and quality of life - efficiency of public buildings
Geographical level	Regional
Name of region or city	Puglia
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	public buildings
Implementation period	since 2017
Implementation body	Regione Puglia
Website	http://www.sistema.puglia.it/SistemaPuglia/efficientamentoenergeticoep
Supported interventions	interventions for energy efficiency, high-efficiency cogeneration, production of energy from renewable sources
Average renovation level	Medium
Minimum energy efficiency criteria	N/A
Brief description of scheme	General objectives: reduction of the gross final consumption of energy through actions aimed at achieving the Europe 2020 objectives of environmental performance (energy efficiency and reduction of CO2 emissions), with specific reference to energy efficiency measures. Reduction of energy consumption in public buildings and structures, residential and non-residential, and integration of renewable sources. Achievement of environmental sustainability and energy performance of the existing public building heritage, also by encouraging the evolution of innovative technological solutions aimed at reducing energy consumption,
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF
Funding sources	N/A
Total budget	EUR 157,891,208.00
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Sustainable and social housing program
Geographical level	Regional
Name of region or city	Puglia
Type of policy	Grant
Targeted sectors	Public housing and subsidized private housing
Beneficiaries	Municipalities - ARCA (Regional Housing Agencies) - Private individuals leasing social housing at an agreed rate
Dissemination	Website
Eligibility conditions	i) buildings must be formally approved and assigned for social housing ii) complying with the provisions of the legislation on Public Residential Construction
Implementation period	since 2020
Implementation body	Region
Website	https://www.regione.puglia.it/web/territorio-paesaggio-e-mobilita/-/programma-dell-abitare-sostenibile-e-solidale-regione-puglia-approvazione-avvisi-pubblici-di-selezione?redirect=%2Fweb%2Fterritorio-paesaggio-e-mobilita
Supported interventions	new buildings and reconstructions: nZEB
Average renovation level	High
Minimum energy efficiency criteria	nZEB
Brief description of scheme	The program includes four lines of intervention: 1-New construction of nZEB buildings, recovery and / or extraordinary maintenance of residential buildings publicly subsidized by Municipalities and ARCA, and purchase of unsold housing by ARCA. 2 - Interventions of recovery, redevelopment, expansion or new construction of primary and secondary urbanization in the context of public residential buildings by the Municipalities. 3- Recovery and / or extraordinary maintenance of accommodation by private individuals. 4-New construction of social housing by the ARCA and the Municipalities.
Budget, funding sources and investments achieved so far	

EU support	No
Funding sources	Region – lines interventions 1 EUR 41.512.846,61 = 51,69 % Region – lines interventions 2 EUR 18.804.231,41= 23,41 % Region – lines interventions 3EUR 5.000.000,00 = 6,22 % Region – lines interventions 4EUR 15.000.000,00 = 18,68 %
Total budget	EUR 80,317,078.02
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	PO Puglia ERDF-ESF 2014-2020: interventions reducing housing discomfort
Geographical level	Regional
Name of region or city	Puglia
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	ARCA (Regional Housing Agencies)
Dissemination	Website
Eligibility conditions	localization in the provincial capitals and in the municipalities with a high seismic degree; older public buildings; interventions for energy efficiency and static verification; ambient assisted living
Implementation period	since 2017
Implementation body	Puglia Region
Website	http://old.regionepuglia.it/web/orca/po-fesr-2014-2020-procedura-negoziata-arca
Supported interventions	building renovation, energy efficiency, seismic safety, ambient assisted living
Average renovation level	High
Minimum energy efficiency criteria	the building must comply with level 2 of the Ithaca Protocol (L.R. 13 of 10/06/2008 and D.G.R. 7 August 2020, n.1304)
Brief description of scheme	General objectives: reduction of the housing discomfort through building renovation, energy efficiency and integration of renewable sources, seismic safety, ambient assisted living actions in public residential buildings.

Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF and ESF
Funding sources	N/A
Total budget	EUR 103,700,000.00
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Legge 80/2014: Improving program for public residential buildings and housing
Geographical level	Regional
Name of region or city	Puglia
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	ARCA (Regional Housing Agencies) and Municipalities with populations over 10.000 inhabitants
Dissemination	Website
Eligibility conditions	amount of the intervention less than EUR 15.000,00 for Linea a); amount of the intervention up to 50.000,00; ownership of the housing by the beneficiary
Implementation period	since 2017
Implementation body	Region
Website	http://old.regionepuglia.it/web/orca/legge-80/2014-art-4
Supported interventions	building renovation, energy efficiency, seismic safety
Average renovation level	High
Minimum energy efficiency criteria	N/A
Brief description of scheme	General objectives: building renovation for energy efficiency, seismic safety, systems and static improvement in public residential buildings.
Budget, funding sources and investments achieved so far	

EU support	No
Funding sources	Unknown
Total budget	EUR 85,712,456.08
Impact achieved so far	
Level of overall impact of scheme	Unknown

Sardegna

Name of scheme/programme	Energy efficiency interventions in public buildings and creation of microgrids in public structures
Geographical level	Regional
Name of region or city	Regione Sardegna
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	website; press release; training to technician and to professional associations of Engineers/architects/surveyors; educational meetings with citizens
Eligibility conditions	Interventions on buildings in which integrated energy efficiency actions are carried out with energy source management systems aimed at optimizing energy consumption, towards the achievement of high standards of safety and environmental comfort (creation of smart buildings) and / or actions of energy efficiency only
Implementation period	from 2017 (July) - ongoing
Implementation body	Regional Department of Industry - Regional Department of Public Works
Website	http://www.regione.sardegna.it/j/v/2644?s=1&v=9&c=389&c1=1323&id=60889
Supported interventions	Promotion of eco-efficiency and reduction of primary energy consumption in public buildings and structures: renovation of ione buildings or building complexes; Creation of intelligent energy distribution grids (smart grids) and interventions on existing transmission grids
Average renovation level	Medium
Minimum energy efficiency criteria	Improvement in energy performance, resulting from the energy audit, the APE ante operam and other project documents, with a reduction of at least 10% of the index of the total global primary energy consumption of the building "EPgl, tot" compared to that it was in fact and allow a reduction of at least 20% of the overall non-renewable energy performance index "EPgl, nren" compared to that it was in fact
Brief description of scheme	The measure concerns non-repayable loans up to 100% of eligible expenses, in order to improve the energy efficiency of public buildings for non-residential use, and / or the construction of smart grid. Eligible interventions may include the construction of plants for RES production, or the RES use, from existing plants, and must guarantee the improvement of the energy efficiency of existing buildings, located in the regional territory.
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Programma "POR FESR Sardegna 2014/2020" Asse Prioritario IV - Energia sostenibile e qualità della vita: 100%
	ActioN/Azione 4.1.1.: Promotion of eco-efficiency and reduction of consumption of primary energy in buildings and public structures: 59%
	ActioN/Azione 4.3.1.: Creation of intelligent energy distribution networks (smart grids) and interventions on transmission networks aimed at increasing the distribution of energy produced from RES
	Programma "POR FESR Sardegna 2014/2020" Asse Prioritario IV - Energia sostenibile e qualità della vita: 41%
Total budget	EUR 44,159,500.00
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	N/A
Total number of interventions/measures	52
Total number of applications	N/A
Achieved energy savings	currently underway monitoring
Achieved GHG reduction	currently underway monitoring
Other benefits or impact	positive impact on local businesses (construction companies)

Sicilia

Name of scheme/programme	PO FESR 2014/2020 – Asse Prioritario 4 “Energia sostenibile e qualità della vita” - Obiettivo Tematico OT4 – Politiche Territoriali
Geographical level	Municipality/city
Name of region or city	Sicilia
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	website
Eligibility conditions	N/A
Implementation period	2014-2020
Implementation body	Regione Sicilia
Website	http://pti.regione.sicilia.it/portal/page/portal/PIR_PORTALE/PIR_LaStrutturaRegionale/PIR_AssEnergia/PIR_DipEnergia
Supported interventions	Promotion of eco-efficiency and reduction of primary energy consumption in public buildings and facilities: renovation of individual buildings or complexes of buildings, installation of intelligent systems for remote control, regulation, management, monitoring and optimization of energy consumption (smartbuildings) and pollutant emissions also through the use of technological mixes, installation of renewable energy production systems for self-consumption.
Average renovation level	N/A
Minimum energy efficiency criteria	N/A
Brief description of scheme	The ERDF Operational Programme 2014/2020 declines, in parallel with the procedures directed to individual municipalities or entities and in view of the integrated approach, also those so-called "territorialized" because they are directed to beneficiaries who identify themselves as homogeneous groups of territorial realities that adopt, through the instrument of Integrated Territorial Investment (ITI), a common planning of investments that are characterized by choices of territorial / organizational, operational and financial concentration. The resulting approach, intrinsically multidimensional, therefore articulated, rests on three pillars consisting of three areas of action: Urban Areas, Internal Areas and CLLD (Local Development of participatory type). This information focuses on Action 4.1.1 -
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF
Funding sources	N/A
Total budget	Agriporto 3.000.000,00 Catania e Acireale 6.207.500,00 Enna e Caltanissetta 2.884.060,77 Gela e Vittoria 4.950.000,00 Marsala, Trapani, Erice, Castelvetrano e Mazara del Vallo 13.179.481,00 Messina 6.300.000,00 Palermo e Bagheria 1.766.161,64 Ragusa e Modica 18.746.187,96 Siracusa 4.500.000,00
Impact achieved so far	
Level of overall impact of scheme	Unknown

Toscana

Name of scheme/programme	Por Fesr 2014-2020, Asse 4, Azione 4.1.1 Interventi di efficientamento energetico degli immobili pubblici Bando Energia Pubblico
Geographical level	Regional
Name of region or city	Toscana
Type of policy	Grant
Targeted sectors	Institutional, school, hospital, health, training, welfare, cultural, sports.
Beneficiaries	Local authorities, healthcare companies
Dissemination	Website, Press release, Mass Campaign, Tailored Advertising (by post, phone, mail)
Eligibility conditions	The buildings subject to intervention must possess at the time of submitting the application all of the following features: a) be located within the regional territory; b) be existing and used. New construction and demolition interventions are not allowed / reconstruction, extension and over elevation; c) be equipped with winter and / or summer air conditioning systems; d) be publicly owned, to be understood as property by the proponents referred to in point 2.1 above or availability by the same by virtue of another real right or personal enjoyment; e) be used for public use (institutional, school, hospital, health, training, welfare, cultural, sports, etc.) and non-residential and similar 2. f) not be intended for the exercise of economic activities in a prevalent form, requiring, in particular, that the public buildings in question are not used for the exercise of economic activities (understood as activities aimed at the production of goods or services on a given market) for at least 80% of the gross air-conditioned volume of the entire building or that the economic activities carried out within them are purely local and that are aimed at a geographically limited catchment area.
Implementation period	The call was officially launched on July 2017. Projects must be completed within 24 months from the date of publication on the BURT of the aid granting decree, with the possibility of adequately motivated extension requests which in total should not exceed 12 months
Implementation body	Regione Toscana + Sviluppo Toscana
Website	https://www.regione.toscana.it/porcreo-fesr-2014-2020 - https://www.sviluppo.toscana.it/
Supported interventions	The interventions will cover, among others, the thermal insulation of horizontal and vertical structures, the replacement of windows and doors, the replacement of air conditioning systems with plants powered by condensing gas boilers or plants powered by high efficiency heat pumps, the replacement of traditional hot water heaters with heat pump or solar collector for domestic hot water production, intelligent automation and control systems for indoor lighting and air conditioning, passive air conditioning systems, high efficiency cogeneration / trigeneration plants, etc. Integration may be workable for the production of thermal energy from renewable energy sources such as solar, aerothermal, geothermal, hydrothermal and for the production of electricity from renewable energy sources such as solar (photovoltaic plants), provided for self-consumption.
Average renovation level	Medium
Minimum energy efficiency criteria	N/A
Brief description of scheme	The Tuscany Region intends to facilitate the implementation of projects concerning the energy efficiency of public buildings, currently being implemented of action 4.1.1 of Axis 4 "Supporting the transition to a low economy carbon emissions in all sectors " of the POR FESR 2014-2020, in compliance with european, national and regional provisions. The Tuscany Region favors and supports efficiency energy of public buildings as a priority objective of the policy community and national energy. Investment projects are financed in the form of a capital contribution to the extent maximum of 90% of eligible expenses. The call provides for the priority allocation of resources in favor of efficiency improvement projects energy of public buildings located in the Municipalities of the Piana Agricultural Park (Firenze, Sesto Fiorentino, Campi Bisenzio, Signa, Calenzano, Prato, Poggio a Caiano and Carmignano).
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	50% EU Funds, 35% State Funds, 15% Regional Funds
Total budget	Total eligible investments EUR 136.124.051,55 – Total contribution requested: EUR 97.835.031,43
Average annual budget	N/A
Total accrued investments	Eligible investments EUR 84.543.004,57 – Contribution granted: EUR 53.262.185,00 – Contribution paid: EUR 8.173.673,43
Average annual investments	N/A
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	272 Local authorities + 23 healthcare companies
Total number of applications	148 Local authorities + 5 healthcare companies

Achieved energy savings	40.000.000 Kwh/year
Achieved GHG reduction	7.770 t CO2eq/year

Name of scheme/programme	Por Fesr 2014-2020, Asse 4, Azione 4.2.1 Aiuti per l'efficientamento energetico degli immobili sedi di imprese (subazione a1- Calls 1/2015, 2016, 2017, 2017 new) e dei processi produttivi (subazione a2 – Call 2/2015)
Geographical level	Regional
Name of region or city	Toscana
Type of policy	Grant
Targeted sectors	Commercial
Beneficiaries	SMEs
Dissemination	Website, Press release, Mass Campaign, Tailored Advertising (by post, phone, mail)
Eligibility conditions	The projects must be carried out in local units or operational offices based in the regional territory. Each project must only concern an existing single local unit or existing operational headquarters consisting of a single building (or real estate unit) identified by the land registry. The existing local unit or existing operational headquarters must be present in Chamber of Commerce or professional registration must correspond to the place of exercise of the activity declared in the planned communication submitted to the Revenue Agency.
Implementation period	The start of the works must not be before 26/04/2016. Expenses incurred starting from 26/04/2016 are eligible as long as they are charged to the project subject of application (only for Calls 2017 and new 2017). Projects are not eligible for which, at the date of submission of the application, it has not been submitted at least the request to obtain the building and energy title to build each. Projects must be completed within 24 months from the date of publication on the BURT of the aid granting decree, with the possibility of adequately motivated extension requests which in total should not exceed 12 months
Implementation body	Regione Toscana + Sviluppo Toscana
Website	https://www.regione.toscana.it/porcreo-fesr-2014-2020 - https://www.sviluppo.toscana.it/
Supported interventions	<p>Sub-action a1 Aid for the energy efficiency of company headquarters: a) The projects relate the following types: 1a) thermal insulation of horizontal and vertical structures; 2a) replacement of windows and doors; 3a) replacement of air conditioning systems with: - systems powered by gas condensing boilers - systems powered by high efficiency heat pumps 4a) replacement of traditional water heaters with heat pump or solar collector water heaters for the production of domestic hot water, whether integrated or not in the heating system of the property; 5a) intelligent automation and control systems for lighting and air conditioning internal as long as using sensors of brightness, presence, movement, concentration of humidity, CO2 or pollutants; 6a) passive air conditioning systems (shading systems, irradiation filtering solar systems, storage systems, solar greenhouses, etc.); 7a) high efficiency cogeneration / trigeneration plants. b) To complete the previous interventions, the following interventions can also be activated for the production of thermal energy from renewable energy sources such as solar, aerothermal, geothermal, hydrothermal and electricity from renewable solar energy sources without exceeding i limits of self-consumption: 1b) solar thermal systems 2b) low and medium enthalpy Geothermal plants 3b) heat pumps 4b) energy efficient district heating / cooling systems 5b) photovoltaic solar systems Each application may also include more than one of the interventions referred to in list a) and b). The production of thermal and electrical energy from renewable sources of the interventions referred to in list b) it must be aimed only at self-consumption, under penalty of ineligibility.</p> <p>Sub-action a2 Aid for the energy efficiency of production processes: The actions that can be activated will concern the following types: · Process heat recovery from furnaces, cogenerations, etc; · Insulations compatible with production processes; · Production plant modifications with very specific interventions to reduce consumption energetic; · Automation and regulation of production plants; · Electric handling, electric motors; · Accumulation, recycling and recovery of process water; · Water storage, recovery for district heating; · Electric power factor correction.</p>
Average renovation level	Medium
Minimum energy efficiency criteria	<p>Sub-action a1 Aid for the energy efficiency of company headquarters: The project, consisting of one or more interventions, must have an energy saving greater than or equal to 10% (compared to consumption of primary energy before intervention)</p> <p>Sub-action a2 Aid for the energy efficiency of production processes: The projects, consisting of one or more interventions, must have an energy savings greater than or equal to 20% (compared to consumption of primary energy before intervention)</p>
Brief description of scheme	The Tuscany Region intends to facilitate the implementation of projects concerning the energy efficiency of company properties, currently being implemented of action 4.2.1 sub action a1 of Axis 4 "Supporting the transition to a low economy carbon emissions in all sectors "of the POR FESR 2014-2020, in compliance with european, national and regional

provisions in accord with the principles of simplification and reduction of administrative burdens for businesses. The objective pursued by the Tuscany Region consists in the granting of concessions in the form of capital grants. The calls provide for the priority allocation of resources in favour of efficiency improvement projects energy of companies with existing operating offices in the Municipalities of the Piana Agricultural Park (Firenze, Sesto Fiorentino, Campi Bisenzio, Signa, Calenzano, Prato, Poggio a Caiano e Carmignano). The intervention is implemented in accordance with Regulation (EU) n. 1407/2013 of the European Commission of December 18, 2013 relating to the application of Articles 107 and 108 of the Operating Treaty of the European Union on "De Minimis" aid.

Budget, funding sources and investments achieved so far

EU support	Yes, FESR
Funding sources	50% EU Funds, 35% State Funds, 15% Regional Funds
Total budget	Eligible investments EUR 56.362.955,41 – Contribution requested: EUR 21.126.026,00
Total accrued investments	Eligible investments EUR 49.146.789,30 – Contribution granted: EUR 16.933.544,70 – Contribution paid: EUR 6.957.595,25

Impact achieved so far

Level of overall impact of scheme	High
Total number of buildings	343
Total number of applications	270
Achieved energy savings	6.600 tep/year
Achieved GHG reduction	13.000 t CO ₂ eq/year
Other benefits or impact	Positive impact on local businesses

Trentino Alto Adige

Name of scheme/programme	Incentivi energetici per richiedenti privati, comuni ed enti
Geographical level	Regional
Name of region or city	Provincia Autonoma dell' Alto Adige
Type of policy	Grant
Targeted sectors	Family houses and public buildings
Beneficiaries	Homeowners and public authorities (local)
Dissemination	Website
Eligibility conditions	buildings built with a building permit issued before January 12, 2005
Implementation period	2020
Implementation body	Provincia Autonoma dell'Alto Adige
Website	https://ambiente.provincia.bz.it/pubbllicazioni.asp?publ_action=4&publ_article_id=327483
Supported interventions	Insulation of roofs, attics and terraces Insulation of exterior walls, first floors and porches Replacement of windows and balcony doors, Installation of solar thermal systems, Installation of photovoltaic systems and construction of wind power plants (ONLY for grid disconnected plants), installation of heat pumps in existing buildings, Hydraulic balancing of existing heating and cooling systems Heat recovery from ventilation systems
Average renovation level	Medium
Minimum energy efficiency criteria	N/A
Brief description of scheme	For the Provincial Council climate protection plays a role important and therefore decided at the beginning of 2017 that the energy efficiency interventions are incentivised to 50% of eligible costs. The contribution is paid at the end of the work according to the invoices justifying the expenses.
Budget, funding sources and investments achieved so far	
EU support	NO
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of interventions/measures	1244
Total number of applications	17.785,89 MWh/y

Name of scheme/programme	Incentivi provinciali per il risanamento energetico dei condomini
Geographical level	Regional
Name of region or city	Provincia Autonoma dell' Alto Adige
Type of policy	Grant
Targeted sectors	Multi family houses
Beneficiaries	Homeowners
Dissemination	Website
Eligibility conditions	Incentives of 70% apply only to interventions carried out in condominiums with at least 5 units and 5 owners exclusively owned by persons and not-for profit entities that do not carry out an economic activity. For Enterprise owned real estate units, incentives amount to a maximum of 50%
Implementation period	2020
Implementation body	Provincia Autonoma dell'Alto Adige
Website	https://ambiente.provincia.bz.it/pubbllicazioni.asp?publ_action=4&publ_article_id=327483
Supported interventions	insulation interventions of external walls, roofs and attics are incentivised to 70% of eligible costs
Average renovation level	Medium
Minimum energy efficiency criteria	N/A
Brief description of scheme	For the Provincial Council climate protection plays a role important and therefore decided at the beginning of 2017 that the insulation interventions of external walls, roofs and attics are incentivised in the future to 70% of eligible costs. The contribution is paid at the end of the work according to the invoices justifying the expenses.
Budget, funding sources and investments achieved so far	

EU support	No
Funding sources	Unknown
Total budget	Unknown

Impact achieved so far

Level of overall impact of scheme	Unknown
Total number of buildings	59
Achieved energy savings	2736,36 MWh/y

Name of scheme/programme	Contribution for energy recovery and requalification interventions - Call 2020
Geographical level	Regional
Name of region or city	Autonomous Province of Trento
Type of policy	Loan, Grant
Targeted sectors	Residential (all)
Beneficiaries	Homeowners
Dissemination	Website, press release
Eligibility conditions	Eligible interventions: interventions allowed by state legislation on tax deductions
Implementation period	2020
Implementation body	Autonomous Province of Trento - Department of health and social policies – Housing policies service
Website	https://www.ufficiostampa.provincia.tn.it/Contributo-per-interventi-di-recupero-e-riqualificazione-del-patrimonio-edilizio-Bando-2020
Supported interventions	Insulation of building envelope, upgrade of technical systems, Installation of RES systems
Brief description of scheme	https://www.ufficiostampa.provincia.tn.it/Comunicati/Recupero-e-riqualificazione-energetica-degli-edifici-via-al-nuovo-bando
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Autonomous Province of Trento 100%
Total budget	EUR 20,000,000.00

Impact achieved so far

Level of overall impact of scheme	Medium
Total number of applications	155 up to November 2020

Name of scheme/programme	Contribution for energy recovery and requalification interventions - Call 2020
Geographical level	Regional
Name of region or city	Autonomous Province of Trento
Type of policy	Loan, Grant
Targeted sectors	Residential (all)
Beneficiaries	Homeowners
Dissemination	Website, press release
Eligibility conditions	Eligible interventions: interventions allowed by state legislation on tax deductions
Implementation period	2016-2019
Implementation body	Autonomous Province of Trento - Department of health and social policies – Housing policies service
Website	https://www.ufficiostampa.provincia.tn.it/Contributo-per-interventi-di-recupero-e-riqualificazione-del-patrimonio-edilizio-Bando-2020
Supported interventions	Insulation of building envelope, upgrade of technical systems, Installation of RES systems
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Autonomous Province of Trento 100%
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of applications	4363(completed intervention)

Name of scheme/programme	Call "Quality in Trentino" - Trade and services
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Geographical level	Regional
Name of region or city	Autonomous Province of Trento
Type of policy	Grant
Targeted sectors	Trade and services
Beneficiaries	Business owners
Dissemination	Website, press release
Eligibility conditions	commercial activities and services (start up, renovated spaces of structures and conversion of activities
Implementation period	2020-2021
Implementation body	Province of Trento - APIAE
Website	https://ripartitrentino.provincia.tn.it/
Supported interventions	redevelopment and refurbishing of building
Brief description of scheme	The tender encourages business interventions aimed at upgrading, renovation and refurbishing. It also supports the start-up of new activities and the creation of new functional spaces for existing activities as well as the adaptation, renovation, conversion or expansion of spaces and structures for replacement or conversion of the activities. Maximum eligible contribution 30%. Applications must be submitted by March 31, 2021 Start Up of new activities or new spaces 50.000,00-600.000,00 / redevelopment of existing spaces 20-600.000,00 conversion of the activity 30-300.000,00
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Autonomous Province of Trento 100%
Average annual budget	5,000,000.00
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Call "Quality in Trentino" – Hospitality industry
Geographical level	Regional
Name of region or city	Autonomous Province of Trento
Type of policy	Grant
Targeted sectors	Hospitality industry
Beneficiaries	SMEs
Dissemination	Website, press release
Eligibility conditions	accommodation facilities in local area
Implementation period	2020-2021
Implementation body	Province of Trento - APIAE
Website	https://ripartitrentino.provincia.tn.it/
Supported interventions	support of tourist accommodation sector, improving the quality of the offer for hospitality, services and infrastructures
Average renovation level	N/A
Minimum energy efficiency criteria	N/A
Brief description of scheme	The tender for the hospitality sector wants to strengthen the quality of the tourist experience e of Trentino hospitality by encouraging interventions such as redevelopment, restructuring, updating and renovation of housing, improvement of common areas, construction or change of destination for functional structures for accommodation, for example in relation to sports, therapeutic and leisure activities. Maximum eligible contribution 30%. Applications must be submitted by March 31, 2021 improvement of single accommodation 30.000-300.000,00 improvement of common spaces 50.000-600.000,00 completion an adaptation of the facility 70.000-600.000
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Autonomous Province of Trento 100%
Average annual budget	5,000,000.00
Impact achieved so far	
Level of overall impact of scheme	Unknown

Umbria

Name of scheme/programme	State-Regions Agreement 15 October 2018 e POR FESR 2014-2020 Asse IV Azione chiave 4.2.1.
Geographical level	Regional
Name of region or city	Region Umbria
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	municipal and provincial administrations, Umbria Region, l'A.Di.S.U (Agency for the right to university education in Umbria) e l'A.R.P.A. (Regional Agency for the Protection of the Environment) Umbria
Dissemination	Website
Eligibility conditions	buildings built with a building permit issued before January 12, 2005
Implementation period	2020-2022 deadline for participation 30 October 2020
Implementation body	Umbria region
Website	https://www.regione.umbria.it/sociale/in-evidenza-immigrazione-/asset_publisher/sgkqbUOrAOja/content/d-d-6493-2020-approvato-bando-per-finanziamento-efficientamento-energetico-edifici-pubblici/maximized?inheritRedirect=false
Supported interventions	Energy Efficiency interventions
Average renovation level	N/A
Minimum energy efficiency criteria	N/A
Brief description of scheme	Funded interventions consist of two distinct sections, called "A" and "B", which differ by category and type of eligible interventions, source of funding, budget and implementation timeline. In particular: Section "A" finances energy efficiency measures with a total cost of at least EUR 50,000.00 and not more than EUR 150,000.00. The allocated financial endowment is equal to EUR 3,750,000.00 in 2021-2022-2023 based on the resources made available according to the State - Regions Agreement of 15.10.2018. Section "B" is intended to finance energy efficiency measures with a total cost of more than EUR 150,000.00. The budget allocated is equal to EUR 3,400,000.00 from the community resources of the POR FESR 2014 - 2020 Axis IV Key Action 4.2.1 registered in the regional budget for the years 2021 and 2022. The Amount of the contribution is equal to 100% of the eligible expenses. Eligible interventions provide a reduction in the global non-renewable energy performance index (EPgl, nren) compared to that of the state of affairs; and provide for a reduction in the annual energy requirement, compared to that of the current state of affairs, to meet the needs of the building in terms of non-renewable primary energy for heating, cooling, ventilation, the production of domestic hot water, for lighting and for people or freight transport systems
Budget, funding sources and investments achieved so far	
EU support	Yes, FESR
Funding sources	Region Agreement 2021-2022-2023: 52% POR FESR 2014-2020 2021-2022: 48%
Total budget	N/A
Average annual budget	7,150,000.00
Total accrued investments	1,300,000.00 (2021), 1,450,000.00 (2022), 1,000,000.00 (2023)
Average annual investments	N/A
Impact achieved so far	
Level of overall impact of scheme	Unknown

Valle d'Aosta

Name of scheme/programme	Loans with subsidized rate (1%) in order to improve energy efficiency of residential buildings
Geographical level	Regional
Name of region or city	Regione Valle d'Aosta
Type of policy	Loan
Targeted sectors	all types of residential buildings (both single and multi family houses), including flat complexes provided that at least 70% of thousandths are residential
Beneficiaries	owners and usufructuaries, just private. The building owners have to be from 18 to 70 years old.
Dissemination	website; press release; tailored advertising by radio; training to technician and to professional associations of Engineers/architects/surveyors; educational meetings with citizens
Eligibility conditions	The interventions must improve energy efficiency. They can involve both a part of a building or a whole building. They must respect the minimum energy performance requirements, defined by legislation. Extensions are allowed only if the whole building is involved in a major renovation
Implementation period	Since 2016 (april)
Implementation body	Regione
Website	https://www.regione.vda.it/energia/Mutui/default_i.aspx
Supported interventions	Professional services up to a maximum of 20% of the financeable amount. Supply and installation of: technical equipment for space heating, space cooling, ventilation, domestic hot water, built-in lighting, building automation and control, on-site electricity generation; thermal insulation systems; external doors, windows and solar screenings; energy production systems from renewable sources. Including: disassembly and disposal of old plant systems.
Average renovation level	Medium
Minimum energy efficiency criteria	minimum energy performance requirements, defined by legislation, and specific local requirements
Brief description of scheme	The measure concerns loans with subsidized rate (1%) in order to improve energy efficiency of residential buildings. The financeable interventions can involve the use of renewable energy sources, and must guarantee the improvement in the energy efficiency of the existing buildings, located in the regional territory and falling within the residential sector.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Region 100%
Total budget	EUR 12,618,400.97
Average annual budget	EUR 3,154,600.24
Total accrued investments	EUR 10,146,293.15
Average annual investments	EUR 2,029,258.63
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	155
Total number of interventions/measures	4
Total number of applications	192
Achieved energy savings	currently underway monitoring
Achieved GHG reduction	currently underway monitoring
Other benefits or impact	positive impact on local businesses (construction companies)

Name of scheme/programme	Grants for the implementation of energy efficiency measures on public buildings of the Municipalities and groups of Municipalities of Regione Valle d'Aosta - PO FESR 2014/2020
Geographical level	Regional
Name of region or city	Regione Valle d'Aosta

Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Wesbite + Press Release + training
Eligibility conditions	Public buildings and public use. The interventions must improve energy efficiency. They must respect the minimum energy performance requirements, defined by legislation, and specific technical requirements. They must produce energy saving and climate emission reduction. Extensions aren't allowed.
Implementation period	2020-2022
Implementation body	Regional authority
Website	https://www.regione.vda.it/energia/PO_FESR_2014-2020/avviso_ad_evidenza_pubblica_per_efficientamento_energetico_del_patrimonio_edilizio_pubblico_dei_comuni_e_delle_unites_des_communes_valdotaines_i.aspx
Supported interventions	Professional services. Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	Medium
Minimum energy efficiency criteria	"Minimum energy performance requirements, defined by legislation, and specific local requirements.
Brief description of scheme	N/A
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF
Funding sources	N/A
Total budget	N/A
Average annual budget	EUR 666,666.67
Total accrued investments	EUR 1,519,966.63
Average annual investments	EUR 506,655.54
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	5
Total number of interventions/measures	5

Veneto

Name of scheme/programme	PAR-FSC 2007-2013 - Linea di Intervento 1.1
Geographical level	Regional
Name of region or city	Regione del Veneto
Type of policy	Grant
Targeted sectors	Residential, public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	Only public authorities are eligible to participate in the program
Implementation period	since 2014
Implementation body	Regione del veneto. Area Sviluppo economico. Direzione Ricerca Innovazione ed Energia. Unità Operativa Energia
Website	https://www.regione.veneto.it/web/energia
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	Medium
Minimum energy efficiency criteria	Improvement of the energetic efficiency ratio
Brief description of scheme	The eligible categories of interventions are: - improving energy efficiency in all elements of building - upgrade of the public lighting systems
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	National sources 100%
Total budget	31,000,000.00
Total accrued investments	21,657,232.17
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	33
Total number of interventions/measures	16
Total number of applications	49
Achieved energy savings	20,300,000.00 kWh/y

Name of scheme/programme	POR FESR 2014/2020 - Asse 4 "Sostenibilità energetica e qualità ambientale". Azione 4.1.1
Geographical level	Regional
Name of region or city	Regione del Veneto
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	Public buildings (city hall, schools, school gym) with a minimum surface of 500 sm, not intended for economic activity
Implementation period	2016-19
Implementation body	Regione del Veneto
Website	https://bur.regione.veneto.it/BurvServices/Pubblica/DettaglioDgr.aspx?id=326320
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High
Minimum energy efficiency criteria	Reach a certification class not lower than E; reduce consumption by at least 20%
Brief description of scheme	N/A
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF and FESR
Funding sources	40% - ERDF
	28% - National contribution
	12% - Regional contribution
	20% - Beneficiaries (local PA)
Total budget	25,000,000.00
Average annual budget	8,333,333.33
Total accrued investments	17,407,165.96

Average annual investments	5,802,388.65
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	81
Total number of interventions/measures	75
Total number of applications	122
Achieved energy savings	20.000.000 kWh/yr
Achieved GHG reduction	4.970 tons di CO2 / yr
Other benefits or impact	101.087 sqm

Name of scheme/programme	POR FESR 2014/2020 - Asse 4 "Sostenibilità energetica e qualità ambientale". Azione 4.1.1
Geographical level	Regional
Name of region or city	Regione del Veneto
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	Public buildings (city hall, schools, school gym) with a minimum surface of 500 sm, not intended for economic activity characterized by seismic verification risk index of at least 0.6
Implementation period	2020-2022
Implementation body	Avepa - Agenzia Veneta per i Pagamenti
Website	https://bur.regionevneto.it/BurServices/Pubblica/DettaglioDgr.aspx?id=401721&highlight=true
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High
Minimum energy efficiency criteria	Reach a certification class not lower than E; reduce consumption by at least 20%
Brief description of scheme	N/A
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF
	34% - ERDF
Funding sources	24% - National contribution 10% - Regional contribution 32% - Beneficiaries (local PA)
Total budget	EUR 36.300.000,00
Average annual budget	EUR 12.100.000,00
Total accrued investments	being implemented
Average annual investments	being implemented

Impact achieved so far

Level of overall impact of scheme	Unknown
Total number of buildings	50
Total number of interventions/measures	50
Total number of applications	125
Achieved energy savings	18.000.000,00 kWh/yr
Achieved GHG reduction	4.370 tons di CO2 / yr
Other benefits or impact	77.400 sqm

Name of scheme/programme	POR FESR 2014/2020 - Asse 4 "Sostenibilità energetica e qualità ambientale". Azione 4.1.1
Geographical level	Regional
Name of region or city	Regione del Veneto
Type of policy	Grant
Targeted sectors	Public
Beneficiaries	Public authorities
Dissemination	Website
Eligibility conditions	Social Housing
Implementation period	2020-2022
Implementation body	Avepa - Agenzia Veneta per i Pagamenti
Website	https://bur.regionevneto.it/BurServices/Pubblica/DettaglioDgr.aspx?id=408164&highlight=true

Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High
Minimum energy efficiency criteria	Reach a certification class not lower than E; reduce consumption by at least 20%
Brief description of scheme	N/A
Budget, funding sources and investments achieved so far	
EU support	Yes, ERDF
Funding sources	50% - ERDF 35% - National contribution 15% - Regional contribution
Total budget	EUR 10,000,000.00
Average annual budget	EUR 3,333,333.33
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	332 flats
Total number of interventions/measures	8
Total number of applications	12
Achieved energy savings	5.500.000 kWh/yr
Achieved GHG reduction	1330 tons di CO2 / yr
Other benefits or impact	24.300 sqm

Latvia

Name of scheme/programme	Revolving fund and low interest and long-term loans
Geographical level	Municipality/city
Name of region or city	Riga, Latvia
Type of policy	Revolving fund and low interest and long-term loans. Grants are used to pay for the project preparation, to some extent they cover the investment costs (rewarding the most ambitious projects) and support low income households.
Targeted sectors	Multi family houses (Post-war buildings built before 1996)
Beneficiaries	Homeowners
Dissemination	REA activities including the promotion of energy renovation through seminars, conferences, regular newsletters which raise awareness on renovation issues, free-of-charge advisory services provided to citizens by a local Information Centre and an update of the multi-apartment building energy consumption database, prepared the ground for the launch of the Fund.
Eligibility conditions	<ul style="list-style-type: none"> - The target group is the 6,000 priority post-war buildings built before 1996 with poor insulation. - Energy consumption above 177 kWh/m² (this is part of the energy audit). - 75% + 1 owner must agree with the renovation. <p>These are privately owned and house about 60% of the city's population. Homeowners pay high utility bills although comfort is low. During the winter period, approximately 10% of an average salary may be used to cover these bills. The energy saving potential is between 50 – 60% with the average cost of renovation being EUR150 /m².</p>
Implementation period	Since 2016
Implementation body	Riga City Council in close cooperation with Riga Energy Agency
Website	http://renovacija.riga.lv/index.php/en/ https://energy-cities.eu/wp-content/uploads/2018/11/Riga_softloans_2017_en.pdf
Supported interventions	<ul style="list-style-type: none"> - Insulation of an attic, roof, ground floor and external walls. - Replacement of windows, replacement or insulation of external doors. - Renovation of a ventilation system. - Renovation or replacement of a hot water preparation system, incl. insulation of pipelines. - Renovation or replacement of heating units. - Renovation of a heating system, including replacement of radiators, installing temperature controls, allocators and other heat metering devices
Average renovation level	Medium
Brief description of scheme	<p>Loan amount: approx. EUR150/m²; on average EUR350,000 EUR per building Maturity: between 10 and 15 years Interest rate: below 3% Guarantee: reduced energy bills are the guarantee for the Fund. The assumption is that all beneficiaries have lower monthly spending and are able to pay back the loan. Existing debts on utility bills must not exceed 10%. No own contribution is required from the beneficiary.</p> <p>Strong points:</p> <ul style="list-style-type: none"> - Focus on a target group with the highest energy consumption - Discount for homeowners makes the loan more attractive - Sustainable model, fund can operate for 30 years - Reimbursed money is used for new loans <p>Weak points:</p> <ul style="list-style-type: none"> - Decision to operate the fund for 30 years may slow down the pace of renovation.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Riga City Council: EUR 4.5 million Loan from a financing institution or an investment fund: EUR 30 million
Total budget	EUR 34.5 million
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Municipal support in preventing danger and performing energy efficiency improvement measures in residential buildings in Riga
Geographical level	Municipality/city
Name of region or city	Riga City Municipality
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	Homeowners
Dissemination	Webinars
Eligibility conditions	Homeowner whose place of residence on 1 January of the current financial year at 0.00 has been declared in the administrative territory of the city of Riga and whose real estate tax debt for real estate objects located in the administrative territory of the city of Riga in the pre-taxation period does not exceed 50 EUR
Implementation period	as set financing agreement
Implementation body	Property Department of Riga City Council
Website	www.rdid.lv and www.atjauno.riga.lv .
Supported interventions	The technical condition of the building has been recognized as dangerous to human life or health in accordance with the procedures specified in regulatory enactments, as well as measures for the improvement of energy efficiency
Average renovation level	Unknown
Minimum EE criteria	Verifiable, measurable or quantifiable increase in the energy efficiency of the building
Brief description of scheme	<p>Programme is launched in June 2020. The maximum co-financing intensity is 50% of the total eligible costs of the approved project, but for one approved project the amount of co-financing may not exceed:</p> <ol style="list-style-type: none"> 1. EUR 30,000 for the reimbursement of construction costs for a renovation project; 2. EUR 5,000 to compensate for the development costs of the construction project of the renovation project; 3. EUR 50,000 to compensate the construction costs of an insulation project; 4. 1000 EUR for compensation of construction project development costs of an insulation project. <p>The Riga City Council Commission for Environmental Degrading Buildings approves the project, determining the maximum amount of co-financing. Based on the Commission's decision, the Property Department requests financial resources to compensate the expenses of the project approved in the budget of the Municipality for the next financial year. The Department concludes a civil law agreement on behalf of the Municipality regarding the implementation of the approved project, acknowledges the fact of implementation of the approved project and pays the co-financing amount.</p>
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Municipal financing
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Procedure for granting real estate tax relief in Riga
Geographical level	Municipality/city
Name of region or city	Riga City Municipality
Type of policy	Tax relief
Targeted sectors	Residential (all)
Beneficiaries	Homeowners
Dissemination	Website
Eligibility conditions	Insulation of all facades done, no real estate tax debts with several exceptions
Implementation period	Each financial year
Implementation body	The Municipal Revenue Office of Riga City
Website	https://pip.riga.lv/en/
Average renovation level	Unknown
Minimum EE criteria	Tax relief is meant for an apartment house for which the insulation of all facades has been performed after its commissioning, or for free-standing groups of premises (apartments) which are part of such a building
Brief description of scheme	Relief 90% shall be granted for real estate from the amount of real estate tax calculated for the taxation year. No tax relief if, a person has: 1. real estate tax debts, except in cases where the real estate tax debt does not exceed the amount of tax relief to be granted; 2. rent and other lease-related payments due for the leased municipal property.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Lithuania

Name of scheme/programme	VIPA - Apartment Buildings Renovation Fund
Geographical level	National
Name of region or city	Lithuania
Type of policy	Long term financing (government and asset backed) + grants (up to 45%) + technical assistance + 100% funding support for low income householders
Targeted sectors	Multi family houses
Beneficiaries	Homeowners and homeowners associations
Dissemination	Marketing campaign involving media, direct meetings with HoA and meeting of apartment buildings, TV programmes, etc.
Eligibility conditions	Multi-apartment building. No restriction on age or household income.
Implementation period	2017-ongoing
Implementation body	VIPA - National Promotional agency owned by the Ministry of Finance
Website	https://www.vipa.lt/en/home/about-us/services/renovation-of-multi-apartment-buildings/
Supported interventions	Building envelope, upgrade of heating systems, lighting, services
Average renovation level	High
Minimum EE criteria	Projects must deliver savings of at least 40% of baseline energy use and raise the Energy Performance Certification (EPC) of the building to a class of C or higher.
Brief description of scheme	VIPA works in concert with the Housing Efficiency Agency (BETA) which provides a one-stop-shop for project preparation and implementation support as well as undertaking monitoring and evaluation of all financed measures. The long pay-back period associated with deep retrofits are addressed through low, fixed interest rates (at 3%), length loan terms (up to 15 years), and access to complementary grants of up to 30% of investment costs paid post completion in installments over first 3-4 years. Further grants are available for covering up to 50% of project preparation, energy certificates, investment plan and construction work supervision costs. Loans are available for up to 100% of investment costs helping mitigate access to capital issues with post completion grants. A gradual reduction in the rate of grant funding has been signalled having already reduced from an earlier rate of up to 45% of investment costs. Acceptance is supported by amendments to Lithuanian legislation that enable projects to proceed upon agreement of a simple majority of apartment owners within a homeowner association, with costs recovered through maintenance charges. Specific allowances are made for low income households which are entitled to receive monthly loan instalment compensation whether energy performance obligations are reached or not.
Budget, funding sources and investments achieved so far	
EU support	EU structural funds + levies from environmental taxation
Funding sources	State loans (green bond backed) EUR 68 million - 23%
	EBRD finance EUR 50 million - 17%
	EU ESIF EUR 80 million - 27%
	State loans (CEB backed) EUR 100 million - 33%
Total budget	EUR 298 million as of 2017
Total accrued investments	EUR 127 million investments in 2017-2019
Average annual investments	EUR 42 million
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	407 multi-apartment buildings in 2017-2019
Total investments	EUR 127 million in 2017-2019
Total number of households	14,572 in 2017-2019
Achieved energy savings	117 GWh/yr (~60% energy saving) in 2017-2019
Achieved GHG reduction	27,326 tonnes/yr in 2017-2019

*Only national schemes

Netherlands

Name of scheme/programme	Stimuleringsregeling Duurzaam thuis (Sustainability loans for citizens in Limburg)
Geographical level	Regional
Name of region or city	Limburg
Type of policy	Loan/revolving fund
Targeted sectors	Private housing market (single family homes, multi-family homes)
Beneficiaries	Homeowners, landlords, tenants
Dissemination	Website, press release, mass campaign, social media, targeted public meetings
Eligibility conditions	loan amount > EUR 2.500 - <= EUR 35.000, interest rate 1,5%-2%, only for houses in the Province of Limburg
Implementation period	no expiry date
Implementation body	Provincie Limburg (NL)
Website	www.limburg.nl/@1665/duurzaam-thuis , www.duurzaamthuislimburg.nl
Supported interventions	Insulation of building envelope including enlarging PV-capacity and stimulating life-course living
Average renovation level	Medium
Minimum EE criteria	Insulation must comply with the insulation values set out in the Regulation.
Brief description of scheme	The investment scheme provides loans for homeowners and tenants (in the Province of Limburg) to make their existing homes more energy efficient, to increase sustainable energy production and/or to make homes lifecycle proof.
Budget, funding sources and investments achieved so far	
EU support	EIB loan and ELENA grant - EUR 75 million of EIB loan and EUR 3,4 million of ELENA grant from EIB to accelerate the pace of lending.
Funding sources	EIB loan: EUR 75 million - 32% Province of Limburg resources: EUR 159,1 million - 68%
Total budget	EUR 234,1 million
Average annual budget	EUR 30 million
Total accrued investments	EUR 120 million since 2013
Average annual investments	EUR 17 million
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	15000 since 2013
Total number of interventions/measures	> 15.000 (some borrowers implement more than one sustainability measure)
Achieved energy savings	42.559 GJ per year since 2013
Achieved GHG reduction	28.750 tons since 2013
Other benefits or impact	252 fte temporarily created employment as a result of the implementation of measures, since 2013

Name of scheme/programme	Assen Service Costs model (ASCM)
Geographical level	Guarantee fund
Name of region or city	City of Assen, the Netherlands
Type of policy	Loan
Targeted sectors	Owner-occupied houses
Beneficiaries	Housing associations
Dissemination	Website
Eligibility conditions	
Implementation period	
Implementation body	
Website	https://h2020prospect.eu/library/goodpractices/98-assen-model-ascm
Supported interventions	Combination of above (specify)
Average renovation level	High (Towards zero on the meter)
Brief description of scheme	<p>The Assen Service Costs model (ASCM) offers a financial model that allows owner-occupied houses to be renovated towards zero-on-the-meter without using personal loans.</p> <p>The ASCM is an innovative form of financing that allows owner-occupied houses to be renovated towards zero-on-the-meter without using personal loans. Our model is based on 'object based-funding' instead of personal-based funding. This allows us to renovate an apartment complex as a whole, instead of renovating a single unit. In the ASCM, owner-occupied houses are renovated to be 'zero on the meter', i.e. the energy consumption of the household equals or is less than the revenue from renewable energy sources (e.g. solar panels).</p> <p>The renovation will be funded through the homeowners association (HOA), while a guarantee fund is provided by the authorities (in our case the regional authorities: Province of Drenthe). This guarantee fund allows banks to provide a loan under current regulations, as the HOA itself does not hold any collateral. Home owners pay a regular fee to the HOA. As the HOA pays for the renovation of the complex, the fee paid by homeowners to the HOA will increase. This increase in so called 'service costs' however is balanced by a decrease in energy costs.</p> <p>The selected consortium of builders who realize the renovation of the apartment complex will guarantee an agreed-upon energy performance of the building for a similar period of the time as the repayment of the loan will take. They are not only responsible for the renovation itself, but as well for maintenance and management of the building. The property owner thus exchanges the energy costs for service costs. Thus, residents live in a more comfortable and energy efficient house, while their costs remain similar, or even decrease.</p> <p>A rollout of this project will have multiple positive effects. The release of capital, among other banks and pension funds, can lead to a huge boost for the construction and sustainability sector and thus for the growth of the economy. This, of course, in addition to the contribution on the objectives of CO2. Other effects are, fiscal benefits (tax revenues) and the increase of the liveability of cities. All these aspects make that there is a lot of interest from the Dutch Parliament and the European Parliament in the Asser Service Costs Model.</p> <p>The ASCM pilot phase is now finished. One building was refurbished and its co-owners do not have any energy bill to pay.</p>
Budget, funding sources and investments achieved so far	
EU support	Unknown
Funding sources	Unknown
Total budget	EUR 2 million
Impact achieved so far	
Level of overall impact of scheme	Unknown

Poland

Name of scheme/programme	Regional Operational Programme of the Mazowieckie Voivodeship 2014-2020
Geographical level	Regional
Name of region or city	Mazowieckie Voivodeship
Type of policy	Loan
Targeted sectors	Multi-family houses
Beneficiaries	Housing cooperatives, PSE, social housing associations
Dissemination	Press release, mass campaign, website, advertising
Eligibility conditions	Minimum level of energy efficiency, energetic audit, CO2 reduction
Implementation period	2018-2023
Implementation body	Getin Noble Bank (the Financial Intermediary)
Website	https://www.getinbank.pl/sektor-publiczny/mieszkaniectwo/kredyty-preferencyjne-ze-srodkiem-unijnym.html
Supported interventions	Support for deep thermo-modernisation in residential buildings, including: 1. thermal insulation of the building; 2. replacement of windows, external door and energy-saving lighting; 3. reconstruction of heating systems (including replacement and connection to the heat source); 4. reconstruction of ventilation and air conditioning; 5. energy management systems; installation of RES in the energy retrofitted buildings; 6. installation of cooling systems, including RES; 7. installation of metering systems, etc.
Average renovation level	Medium
Minimum EE criteria	25%
Brief description of scheme	
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF - 80%
	Private Contribution - 20%
Co-financing provided by the Financial Intermediary - 20%	
Total budget [EUR]	EUR 9,706,765 in 2014-2020
Impact achieved so far	
Level of overall impact of scheme	Low
Total number of buildings	13 in 2014-2020
Total number of interventions/measures	13 in 2014-2020
Total number of applications	13 in 2014-2020
Achieved energy savings	6.837,21 GJ/y
Achieved GHG reduction	674,03 Mg/y (CO2 only, no CH4, CFC, N2O)

Name of scheme/programme	Regional Operational Programme of the Mazowieckie Voivodeship 2014-2020
Geographical level	Regional
Name of region or city	Mazowieckie Voivodeship
Type of policy	Grant
Targeted sectors	Public; Multi-family houses
Beneficiaries	Local government unit, their unions and associations; Organizational units of local government units with legal personality; Units of the public finance sector with legal personality; Medical entities operating in the public health care system (having a contract with the National Health Fund); Cultural institutions; Colleges; Housing cooperatives, housing communities, social housing associations; Churches and religious associations as well as legal persons of churches and religious associations; Non-governmental organizations.
Dissemination	Press release, mass campaign, website, advertising, Training or toolkit
Eligibility conditions	Minimum level of energy efficiency, energetic audit, CO2 reduction
Implementation period	2014-2023
Implementation body	The Office of the Marshal of the Mazowieckie Voivodeship in Warsaw
Website	www.funduszeflamazowsza.eu
Supported interventions	Support for deep thermo-modernisation in residential buildings, including: 1. thermal insulation of the building; 2. replacement of windows, external door and energy-saving lighting; 3. reconstruction of heating systems (including replacement and connection to the heat source); 4. reconstruction of ventilation and air conditioning; 5. energy management systems; installation of RES in the energy retrofitted buildings; 6.installation of cooling systems, including RES; 7. installation of metering systems, etc.
Average renovation level	Medium
Minimum EE criteria	25%
Brief description of scheme	
Budget, funding sources and investments achieved so far	
EU support	ERDF, country budget
Funding sources	ERDF - 80% Country budget - 9% EUR 86,404,978
Total budget	EUR 91,832,723 in 2014-2020
Total accrued investments	EUR 86 404 978
Impact achieved so far	
Level of overall impact of scheme	Low
Total number of buildings	438 in 2014-2020
Total number of interventions/measures	148
Total number of applications	261 in 2014-2020
Achieved energy savings	393 810 GJ/year
Achieved GHG reduction	1324058 CO2 Mg/year

Name of scheme/programme	Regional Operational Programme for Opolskie Voivodeship, 3.4 Energetic Efficiency in enterprises
Geographical level	Regional
Name of region or city	Opolskie
Type of policy	Grant
Targeted sectors	Commercial
Beneficiaries	SMEs
Dissemination	Website, Press release
Eligibility conditions	Energy audit / NUTS3 level - Nyski region / cost-effectiveness / CO2 reduction ratio
Implementation period	2014-2020
Implementation body	Marshall Office of Opolskie Voivodeship / Opolskie Center for Economy Development
Website	rpo.opolskie.pl
Supported interventions	Combination of above (specify)
Average renovation level	Unknown
Minimum EE criteria	min. 25%
Brief description of scheme	1. application of energy-saving (electricity, heat, cold, water) technologies for the production and use of energy, 2. application of energy recovery technology along with the waste heat energy utilization system, 3. application of energy-saving technologies in enterprises, 4. deep energy modernization of buildings in enterprises, 5. installations for the production, processing, storage and transmission of energy from renewable sources, 6. energy audit for SMEs as a comprehensive project element
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF, micro and small enterprises - 65% ERDF, medium enterprises - 55%
Total budget	10 000 000 EUR
Average annual budget	1 666 000 EUR
Total accrued investments	5 488 318 EUR
Average annual investments	784 045 EUR
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	75
Total number of interventions/measures	21 approved
Total number of applications	64 submitted
Achieved energy savings	0,14 GWh (2016) / 0,12 GWh (2019)
Achieved GHG reduction	0%
Other benefits or impact	Reduction in annual consumption primary energy in buildings public (2019) - 47% of total 54 500 000 (2023)

Name of scheme/programme	Regional Operational Programme for Opolskie Voivodeship, 5.5 Air protection
Geographical level	Regional
Name of region or city	Opolskie
Type of policy	Grant
Targeted sectors	-local government units, their unions, associations and agreements -organizational units of local government units -single-family buildings -multi-family buildings managed by communities -buildings and residential premises constituting the resource of the commune
Beneficiaries	Public authorities
Dissemination	Mass Campaign
Eligibility conditions	cost-effectiveness / CO ₂ reduction ratio
Implementation period	2014-2020
Implementation body	Marshall Office of Opolskie Voivodeship
Website	rpo.opolskie.pl
Supported interventions	Combination of above (specify)
Average renovation level	Unknown
Minimum EE criteria	CO ₂ reduction – min 30% Ensuring a minimum level of building energy efficiency. Support will be granted only to projects which provide for measures ensuring the achievement of the minimum level of energy efficiency of the building in accordance with the Standard for the minimum scope of energy assessment of a building under Scheme 5.5 Air protection
Brief description of scheme	1. Liquidation of individual heat sources for connection to heating networks or gas networks along with the necessary thermo-modernization works, 2. Replacement of individual heat sources with more ecological ones, along with the necessary thermo-modernization works
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF, municipal housing communities - 34% ERDF, public buildings - 63%
Total budget	13 400 000 EUR
Average annual budget	2 233 333 EUR
Total accrued investments	2 670 277 EUR
Average annual investments	445 046 EUR
Impact achieved so far	
Level of overall impact of scheme	Low
Total number of buildings	75
Total number of interventions/measures	16 approved
Total number of applications	25 submitted
Achieved energy savings	0,14 GWh (2016) / 0,12 GWh (2019)

Name of scheme/programme	4.3 Energy efficiency and renewable energy sources in public and residential infrastructure - this is one of the measures implemented under the Regional Operational Programme of the Śląskie Voivodeship.
Geographical level	Regional
Name of region or city	Śląskie Voivodeship
Type of policy	Grant
Targeted sectors	Public sector, Non-governmental sector, Universities, Social housing associations
Beneficiaries	1.Local and regional authorities, their unions and associations; 2.Metropolitan Union; 3.Entities in which a majority of the shares or shares are held by local government units territorial or their unions and associations; 4.Entities belonging to the financial sector public (not mentioned above); 5.Entities carrying out therapeutic activities, in within the meaning of the Act on Medicinal Activity, having legal personality or capacity legal; 6.Universities; 7.NGOs; 8.Social housing associations
Dissemination	Website, Training or toolkit
Eligibility conditions	<p>1. The implementation of the project requires development and attach the energy audit of pre-realization.</p> <p>2. With regard to public buildings for public and state authorities of legal entities: No support for buildings whose the owner or user is a body of a centrally managed public authority, in including the state budget unit, a governmental unit, subordinate its body or entity, and also a State-owned legal entity.</p> <p>3. Implementation of projects concerning multifamily buildings housing (municipal buildings, buildings managed by TBS): No support for multi-family projects housing, except social housing, assisted housing and protected and communal housing made available under special conditions.</p> <p>4. Undertakings implemented in buildings multifamily, connected to of district heating and subjected to energy modernisation must be comply with the ex-ante conditions of the Directive 2006/32/EC.</p> <p>5. For project type 2 (decommissioning low emissions) supported installations for the heating must be characterised by applicable from the end of 2020. minimum efficiency level energy and emission standards impurities which are defined in implementing measures for the Directive 2009/125/EC</p> <p>6. Investments for modernisation public buildings in which therapeutic activity is carried out in the scope of hospital treatment may include only facilities whose functioning will be justified in the context of maps of health needs.</p> <p>7. In the case of projects concerning the exchange of an individual heat source for a source fired by gaseous fuel or biomass, you can support the following buildings:</p> <ul style="list-style-type: none"> - buildings in which, together with the replacement the heat sources are carried out at the same time, thermomodernisation. - buildings where thermomodernisation has already been done (the project is implementing only 2 project types). <p>8. No support for: projects in the field of installation of an individual heat source fuelled by gas or biomass with CO2 reduction under 30%.</p> <p>9. No support for: projects in the field of major energy modernisation increasing energy efficiency (calculated for final energy) below 25% (concerns implementation of project type 1).</p> <p>10.Under all 3 types of projects only utility buildings will be covered public and the above-mentioned multi-family buildings (i.e. social housing buildings, assisted and protected and housing municipal made available on special conditions). With regard to single-family buildings support is only possible under projects ecological municipalities or projects grants, excluding the possibility of implementation of project type 1 (concerning thermomodernisation)</p> <p>11.Under the 3rd type of project it is possible to support for the construction of an installation using RES with only 1. and/or 2. type the project in relation to the sites included in actions implemented under 1. and/or 2. type. RES scope, as well as the remaining scope of the project must result from the attached energy audit.</p> <p>12.In the case of projects "organic municipalities" (which are not (grant projects) by other entities than local government units, their unions and associations, shall be introduced the following restrictions (first including second or first together with third):</p> <ul style="list-style-type: none"> - Limitation of the total project value up to PLN 7 million and - The duration of an entity which at least 3 years or - Project implementation in partnership with a local government unit. <p>13.For projects implemented in the grant formula apply additionally the following rules:</p> <ul style="list-style-type: none"> - The beneficiary of a grant project may be local government units or their unions and responsible associations for preparing and settling the project. The beneficiary of a grant project grants to public bodies or private (e.g. natural persons), in the earmarked grant formula with simultaneous including the amount of own contribution. - The Grantee (final recipient) is public or private entity (e.g. a natural person), other than the beneficiary a grant project which has been awarded the grant is awarded in accordance with the contract signed for the award of the grant. The grantees are elected through an open call for

	<p>applications the project announced by the beneficiary grant.</p> <ul style="list-style-type: none"> -In the case of a grant project, no opportunities to implement projects partnership. - Funding may be granted for undertakings that have not been completed. -Description of how to apply for grants by the grant recipients, the grant rules, the settlement and control of grants shall be determined by the beneficiary of the grant project. - Value of the individual grant the grant recipient may not be equal to or more than EUR 200 000.
Implementation period	2014-2020
Implementation body	Marshal's Office of the Śląskie Voivodeship, and for the integrated/regional territorial investments: Association of Municipalities and Districts of the Central Subregion of the Silesian Voivodeship, Association of Municipalities and Districts of the Western Subregion of the Silesian Voivodship, Częstochowa City and Bielsko-Biała City
Website	https://rpo.slawskie.pl/
Supported interventions	<p>3 types of projects are implemented under the measure 4.3 Energy efficiency and renewable energy sources in public and residential infrastructure :</p> <ol style="list-style-type: none"> 1. Energy efficiency improvement of buildings of public and multifamily use of residential buildings. 2. Elimination of "low emissions" through individual replacement/modernisation heat sources or connecting buildings to networked heaters. 3. Construction of RES installations in modernised energy buildings.
Average renovation level	Low
Minimum EE criteria	<p>reduction CO₂ by at least 30% /based on the indicator the direct result: Estimated annual decrease in greenhouse gas emissions/ in relation to existing heat source installation. This criterion only applies to the second type of project - <i>Elimination of "low emissions" through individual replacement/modernisation heat sources or connecting buildings to networked heaters.</i></p>
Brief description of scheme	The objective of the measure is increased energy efficiency in the public and residential sectors. Support is given to measures for the deep energy renovation of buildings public utility and residential buildings, including construction and reconstruction of infrastructure for the production and distribution of energy from renewable sources in modernised energy efficiency of buildings and/or decommissioning of 'low emissions' through replacement/modernisation individual heat sources.
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	<p>European Regional Development Fund (257 460 039 EUR) - 85%</p> <p>National Public Funds (33 308 410 EUR) - 11%</p> <p>National Private Funds (12 655 702 EUR) - 4%</p>
Total budget	303 424 151 EUR in 2014-2020
Average annual budget	43346307,29 EUR
Total accrued investments	1 128 mln PLN in 2014-2020
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	lack of indicator
Total number of interventions/measures	560 (2014-2020)
Total number of applications	735 (2014-2020)
Achieved energy savings	Reducing annual primary energy consumption in public buildings - 93 197 833,11 kWh/year
Achieved GHG reduction	Estimated annual decrease in greenhouse gas emissions - 37 691,43 tons of equivalent/carbon dioxide (2014-2020)
Other benefits or impact	Number of RES heat generation units - 99 units

Name of scheme/programme	Czyste Powietrze
Geographical level	Regional
Name of region or city	Województwo Świętokrzyskie
Type of policy	Grant
Targeted sectors	Single family houses
Beneficiaries	Homeowners
Dissemination	Website, Mass Campaign(TV, Radio), Press Release
Eligibility conditions	<p>In accordance with the provisions of the CP Program, expenses incurred in existing buildings, i.e. buildings put into use, are eligible. When it comes to the thermal modernization of an existing building, the date of obtaining a building permit is important. In a building for which a building permit was applied for / construction notification was submitted after December 31, 2013, a project may be awarded for a project related to the replacement of an ineffective heat source with solid fuel for a modern heat source that meets the requirements of the Program, this may be combined with the modernization of central heating and hot utility water, as well as the assembly of photovoltaic micro-installations. However, in such buildings no co-financing is granted for the scope of eligible costs such as insulation of building partitions, window and door joinery.</p> <p>In the version of the Program valid from May 15, 2020, no co-financing of newly built buildings is provided. A building under construction does not meet the definition of a residential building. The types of projects, which include individual categories of eligible costs, which result in the maximum grant amounts determined for an existing building / apartment, may not apply to a building under construction. Project costs incurred in the building during construction cannot qualify for the Clean Air Program.</p> <p>In terms of income, we are currently accepting applications for the basic level of funding, i.e. applicants with an annual income constituting the basis for calculating the tax - not exceeding PLN 100,000 are eligible. PLN.</p>
Implementation period	2018-2027
Implementation body	Wojewódzki Fundusz Ochrony Środowiska i Gospodarki Wodnej w Kielcach
Website	https://portalbeneficjenta.wfos.com.pl/strona-glowna-programu
Supported interventions	Insulation of building envelope, Upgrade of technical systems, Installation of RES systems, Installation of control systems
Average renovation level	Medium
Minimum EE criteria	it depends on the type of investment, f.a. 1. windows, doors and garage doors must meet the technical requirements specified in the regulation of the Minister of Infrastructure of 12 April 2002 on technical conditions to be met by buildings and their location (i.e. Journal of Laws of 2015, item 1422, as amended), effective from December 31, 2020 (WT 2021). 2. rest of criteria on website: http://czystepowietrze.gov.pl/wymagania-techniczne-zakres-rzeczywisty-przedsięwzięcia/
Brief description of scheme	Co-financing the replacement of old and ineffective heat sources with solid fuel with modern heat sources that meet the highest standards, and the necessary thermomodernization works of the building
Budget, funding sources and investments achieved so far	
EU support	NO
Funding sources	Beneficiary: 50-70% WFOŚiGW: 30-50%
Total budget	170000000 PLN
Average annual budget	145000000 PLN in 2018-2020
Total accrued investments	9000 buildings in 2018-2020
Average annual investments	4000
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	9000 in 2018-2020
Total number of applications	9650 in 2018-2020
Achieved energy savings	16000MWh per year

Name of scheme/programme	own WFOSiGW program
Geographical level	Regional
Name of region or city	Województwo Świętokrzyskie
Type of policy	Loan with 15% benefit(grant)
Targeted sectors	Residential, Commercial and Public
Beneficiaries	All
Dissemination	Combination of various channels
Eligibility conditions	Applicant must have creditworthiness and the investment must be pro-ecological and carried out in the Świętokrzyskie Voivodeship
Implementation period	2017-2020
Implementation body	Wojewódzki Fundusz Ochrony Środowiska i Gospodarki Wodnej w Kielcach
Website	www.wfos.com.pl
Supported interventions	
Average renovation level	Medium
Minimum EE criteria	Journal of Laws of 2015, item 1422, as amended, effective from December 31, 2020 (WT 2021)
Brief description of scheme	Co-financing the replacement of old and ineffective heat sources with solid fuel with modern heat sources that meet the highest standards, and the necessary thermomodernization works of the building
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	WFOSiGW - 15% Beneficiary - 85%
Total budget	45,142,593 in 2017-2020
Average annual budget	12,000,000
Total accrued investments	11,500,000 in 2017-2020
Average annual investments	119
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	475
Total number of applications	538
Achieved energy savings	2500kW in 2020
Achieved GHG reduction	7000Mg per year

Portugal

Name of scheme/programme	ENERGY EFFICIENCY IN COMPANIES
Geographical level	Regional
Name of region or city	Alentejo Region
Type of policy	Refundable grants (audits and diagnostics) and non-refundable grants (other actions)
Targeted sectors	<i>Business sector</i>
Beneficiaries	Business owners
Dissemination	Alentejo 2020 Website
Eligibility conditions	The conversion of 30% of reimbursable support into non-reimbursable support will be carried out when the ex-post energy audit shows a rate of reduction of primary energy consumption in the enterprises concerned by the intervention of more than 20% or 10%, depending on the type of intervention.
Implementation period	2 years (24 months) from the date of signature of the Term of Acceptance
Implementation body	
Website	http://www.alentejo.portugal2020.pt/
Supported interventions	Energy efficiency in productive processes and related, energy efficiency in buildings (windows and building envelope), technical systems, control systems, sustainable vehicles, renewable energy for self-consumption, audits and diagnostics and .
Average renovation level	Unknown
Minimum EE criteria	Not applicable
Brief description of scheme	The present scheme aims to support actions aimed to increase energy efficiency and the use of renewable energy for self-consumption in business setor, thus contributing to the promotion of efficiency companies and for increasing the competitiveness of the economy through the reduction of the energy bill.
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF, refundable grants - 70% ERDF, non refundable grants - 30%
Total budget	EUR 3,000,000 in 2019
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Rehabilitation in social neighbourhoods
Geographical level	Regional
Name of region or city	Alentejo Region
Type of policy	Non-refundable grant
Targeted sectors	Social single family houses
Beneficiaries	Local Public Administration and public entities managing or owning social housing
Dissemination	Alentejo 2020 Website
Eligibility conditions	Evidence that the interventions to develop will correspond to gains in energy efficiency
Implementation period	3 years (36 months) from the date of signing the Term of Acceptance.
Implementation body	Body governed by public or private law
Website	http://www.alentejo.portugal2020.pt/
Supported interventions	Energy efficiency of buildings (illumination, windows and building envelope, control systems), domestic hot water, technical systems, solar thermal and photovoltaic systems, other renewable energy for self-consumption, audits and diagnostics.
Average renovation level	High
Minimum EE criteria	Illumination systems with minimum energy class equal to A and heating systems with minimum energy class equal to A +
Brief description of scheme	The present scheme is intended to support actions that aim to increase energy efficiency and the use of renewable energy for self-consumption in buildings of social housing.
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF, refundable grants - 85%
Total budget	20.000.000
Total accrued investments	800,000.00
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of applications	9 in 2017 - 2018
Name of scheme/programme	ENERGY EFFICIENCY IN LOCAL GOVERNMENT PUBLIC INFRASTRUCTURE
Geographical level	Regional

Name of region or city	Alentejo Region
Type of policy	Refundable or non-refundable grants, depending on the action type
Targeted sectors	<i>Local administration and public services</i>
Beneficiaries	Local Authorities, their Associations and the companies of the local business sector 100% owned by public entities
Dissemination	Website
Eligibility conditions	Base rate increase for investments that result in higher increases in energy performance class; In case of interventions in buildings with public or municipal interest over 40 years old, the basic co-financing rate is 25% and will be increased by 20%.
Implementation period	3 years (36 months) from the date of signing the Term of Acceptance.
Implementation body	Body governed by public or private law
Website	http://www.alentejo.portugal2020.pt/
Supported interventions	<i>energy efficiency of buildings (illumination, windows and building envelope, control systems), promotion of renewable energy for self-consumption, efficient street lighting and with energy management systems, audits and diagnostics.</i>
Average renovation level	High
Minimum EE criteria	Minimum 30% reduction in primary energy consumption, compared to the consumption before the investment.
Brief description of scheme	This scheme intends to support projects that include the implementation of energy efficiency measures in existing Local Government infrastructure and equipment, with the use of reimbursable and non-reimbursable grant support, the latter compulsory for audits and studies.
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF, refundable grants - 95% ERDF, non refundable grants - 25% - 30%
Total budget	EUR 34,251,560 in 2017-2019
Total accrued investments	EUR 7,600,000 in 2017 - 2018
Impact achieved so far	
Level of overall impact of scheme	High
Total number of applications	51 in 2017-2018

Name of scheme/programme	Prémio Eficiência Energética – Açores
Geographical level	Regional
Name of region or city	Autonomous Region of the Azores
Type of policy	<i>Support and Award</i>
Targeted sectors	<i>Companies; Industry; Tourist developments; Schools</i>
Dissemination	<i>Website; Press Release; Campaign; Training</i>
Eligibility conditions	Participation in an awareness raising action
Implementation period	2019-2022
Implementation body	Regional Directorate for Energy
Website	https://portaldaenergia.azores.gov.pt/portal/Eficiencia-Energetica/Campanhas-EEA
Supported interventions	Technical assistance
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	It aims to contribute to increase the energy performance of several sectors in the Azores. After participating in an awareness raising action, the entity presents an energy efficiency plan to be implemented in their facilities. The winners receive a charging point for electric vehicles to be installed on their facilities and it is given technical assistance when energy efficiency measures are applied. This programme was approved by Resolution of the Government of the Autonomous Region of the Azores.
Budget, funding sources and investments achieved so far	
EU support	ERDF
Funding sources	ERDF - 85% Regional budget - 15%
Total budget	EUR150.183 in 2019-2022
Average annual budget	EUR37.545,75
Total accrued investments	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Encontros com a Eficiência Energética – Escolas
Geographical level	Regional
Name of region or city	Autonomous Region of the Azores
Type of policy	Promotion
Targeted sectors	Education (schools)
Beneficiaries	Public in general
Dissemination	<i>School sessions; Book "A Energia Viva da Terra"</i>
Eligibility conditions	N/A
Implementation period	2019-ongoing
Implementation body	Regional Directorate for Energy
Website	https://portaldaenergia.azores.gov.pt/portal/Eficiencia-Energetica/Escolas
Supported interventions	Promotion
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	The Energy Efficiency Meetings - Schools was created to alert and to sensibilize students to the rational use of energy. These sessions aim to guide students towards more appropriate behaviors in the efficient use of energy, such as the importance of individual and collective commitment, with important results in the fight against climate change.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	Unknown

Name of scheme/programme	Plano Regional de Ação para a Eficiência Energética (PRAEE)
Geographical level	Regional
Name of region or city	Autonomous Region of the Azores
Type of policy	Plan and Promotion
Targeted sectors	<i>Commerce and services; Industry; Public Administration; Residential; Transports; Agriculture; Fisheries; Buildings in general</i>
Dissemination	<i>Website; Press Release; Campaign; Training</i>
Eligibility conditions	N/A
Implementation period	2019-2022
Implementation body	Regional Directorate for Energy
Website	https://portaldaenergia.azores.gov.pt/portal/Efici%C3%A3ncia-Energ%C3%A9tica/Manuais
Supported interventions	Promotion; Implementation actions
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	PRAEE is a broad set of programs and measures aimed at significantly increasing energy efficiency by public and private entities. Among others, the elaboration and dissemination of manuals on energy efficiency directed to several sectors: agribusiness, public administration, hotel business, fisheries and residential.
Budget, funding sources and investments achieved so far	
EU support	Cofunded by the ERDF
Funding sources	ERDF - 85% Regional budget - 15%
Total budget	EUR83.190,00 in 2019-2022
Average annual budget	EUR20.797,50
Total accrued investments	Unknown
Average annual investments	Unknown
Impact achieved so far	

Level of overall impact of scheme	Unknown
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Name of scheme/programme	PROENERGIA
Geographical level	Regional
Name of region or city	Autonomous Region of the Azores
Type of policy	Grant
Targeted sectors	<i>Families, companies, cooperatives, non-profit associations and private institutions of social solidarity.</i>
Dissemination	<i>Integrated information campaign reaching different stakeholders (TV, social media, flyers)</i>
Eligibility conditions	Accordingly to the regional legislation in force
Implementation period	2010-ongoing
Implementation body	Regional Directorate for Energy
Website	https://portaldaenergia.azores.gov.pt/portal/Servicos/Proenergia
Supported interventions	Other (specify)
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	PROENERGIA is an incentive system for the production and storage of energy from renewable sources. It is available in order to stimulate the production and storage of electrical and heat energy, essentially destined for self-consumption by families, companies, cooperatives, non-profit associations and Private Social Solidarity Institutions. Projects involving: electric power production; energy storage; heat energy production; hot water production.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Regional budget - 100%
Total budget	EUR2.177.066,15 in 2013-2019
Average annual budget	EUR311.009,45
Total accrued investments	Unknown
Average annual investments	Unknown
Impact achieved so far	
Level of overall impact of scheme	High
Total number of applications	586 in 2019
Achieved energy savings	Unknown
Achieved GHG reduction	Unknown

Name of scheme/programme	ECO.AP Açores – Programa de Eficiência Energética na Administração Pública
Geographical level	Regional
Name of region or city	Autonomous Region of the Azores
Type of policy	Support
Targeted sectors	Regional Public Administration, regional public companies, in regional public foundations and in regional public or private associations with mostly public capital.
Dissemination	Website; Press Release; Campaign; Training
Eligibility conditions	N/A
Implementation period	2019-ongoing
Implementation body	Regional Directorate for Energy
Website	https://portaldaenergia.azores.gov.pt/portal/Eficiencia-Energetica/ECO.AP-Acores
Supported interventions	Support
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	ECO.AP Açores aims to improve energy efficiency in all services and bodies of the Regional Public Administration, as well as in regional public companies, in regional public foundations and in regional public or private associations with mostly public capital. All of these bodies must designate and promote the training of a Local Energy Manager. Local Energy Managers must participate in "Energy Managers in Public Buildings" training sessions.
Budget, funding sources and investments achieved so far	
EU support	N/A
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	131 (building or building sector) as of 2019

Name of scheme/programme	Programa de Eficiência Energética nas Instituições Particulares de Solidariedade Social
Geographical level	Regional
Name of region or city	Autonomous Region of the Azores
Type of policy	<i>Audit and Support</i>
Targeted sectors	<i>Private social security institutions</i>
Dissemination	<i>Website; Press Release; Campaign; Training</i>
Eligibility conditions	N/A
Implementation period	2019-ongoing
Implementation body	Regional Directorate for Energy
Website	https://portaldaenergia.azores.gov.pt/portal/Eficiencia-Energetica/IPSS
Supported interventions	<i>Energy Audits</i>
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	This programme aims to promote energy efficiency and to reduce the financial burden and the ecological footprint. This program includes Energy Audits, carried out within the scope of the Energy Certification System for Buildings in the Azores (SCE Açores), which consist of a detailed examination of the conditions of energy use. The audits carried out result in the issuance of an Energy Certificate that indicates improvement measures to reduce consumption and to choose energy production systems from renewable sources. The Certificate also allows to know the energy class as well as the potential to improve.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Regional budget - 100%
Total budget	EUR75.933,00 in 2019-2020
Average annual budget	EUR32.175,00
Total accrued investments	Unknown
Average annual investments	Unknown
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	15 in 2019-2020

Name of scheme/programme	Sistema de Certificação Energética de Edifícios dos Açores (SCE Açores)
Geographical level	Regional
Name of region or city	Autonomous Region of the Azores
Type of policy	Other (specify)
Targeted sectors	Public
Beneficiaries	Combination of above (specify)
Dissemination	Combination of above (specify)
Eligibility conditions	N/A
Implementation period	2009-ongoing
Implementation body	Regional Directorate for Energy
Website	https://portaldenergia.azores.gov.pt/portal/SCE-Acores
Supported interventions	Other (specify)
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	SCE Açores is a process of evaluation and validation of the energy performance of properties that results in the issuance of an Energy Certificate. It allows to get to know the building by describing the aspects that influence energy consumption. The Energy Certificate classifies the energy efficiency of the property on a scale from F (inefficient) to A + (very efficient), indicates improvement measures that can be implemented and also the necessary investments to result in financial return.
Budget, funding sources and investments achieved so far	
EU support	N/A
Funding sources	Unknown
Total budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of interventions/measures	Issuance of 13.000 certificates, approximately as of 2009
Other benefits or impact	Renewable energy production (42,572,314.93 kwh/year)

Name of scheme/programme	Cadastro do Potencial Fotovoltaico de Edifícios da Administração Pública da Região Autónoma dos Açores
Geographical level	Regional
Name of region or city	Autonomous Region of the Azores
Type of policy	<i>Evaluation and Support</i>
Targeted sectors	<i>Public Administration</i>
Beneficiaries	Public authorities
Dissemination	<i>Campaign, Press Release</i>
Eligibility conditions	N/A
Implementation period	2020-ongoing
Implementation body	Regional Directorate for Energy
Website	Under development
Supported interventions	<i>Evaluation and Support</i>
Average renovation level	Unknown
Minimum EE criteria	N/A
Brief description of scheme	This programme consists of preparing a registration of the photovoltaic potential in public buildings of the Regional Government of the Azores with a view to further promoting the installation of these systems in the Production Units for Self-consumption regime. This programme has covered 56 public buildings so far.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Regional budget - 100%
Total budget	EUR37.800,00 as of 2020
Average annual budget	N/A
Total accrued investments	Unknown

Average annual investments	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	56 in 2020

Slovakia

Name of scheme/programme	ELENA – European Local ENergy Assistance
Geographical level	Regional
Name of region or city	Prešov, Košice and Bratislava Regions, Slovakia
Type of policy	Grant
Targeted sectors	Public buildings and public lighting
Beneficiaries	Public authorities
Dissemination	Select dissemination type
Eligibility conditions	
Implementation period	2015 - 2022
Implementation body	European Investment Bank, Local governments
Website	https://www.eib.org/en/products/advising/elena/index.htm
Supported interventions	Select type of intervention
Average renovation level	Select level
Brief description of scheme	ELENA is a joint initiative by the European Investment Bank and the European Commission under the Horizon 2020 programme. A team of experts, consisting of engineers and economists with extensive experience in the energy and transport sectors, lead the ELENA facility. Established in 2009, the ELENA facility has awarded more than EUR180 million of EU support, mobilising an estimated investment of around EUR6.6 billion (as of end 2019).
Budget, funding sources and investments achieved so far	
EU support	European Investment Bank, initiative ELENA
Funding sources	ELENA: 90% Local funds: 10%
Total budget	EUR 4131304.77 in 2015 - 2022
Impact achieved so far	
Level of overall impact of scheme	Unknown
Achieved energy savings	65,26 GWh/y in 2015 - 2022
Achieved GHG reduction	16 620 tCO2e/y in 2015 - 2022

Name of scheme/programme	Improvement of thermal technical properties of buildings - Single- family buildings (SFB)
Geographical level	National
Type of policy	Grant
Targeted sectors	└ Single family houses
Beneficiaries	Homeowners
Dissemination	Website
Eligibility conditions	Building has to be at least 10 years old and have interior area lower than 150 m ² .
Implementation period	2014 - 2020
Implementation body	Associations, energy agencies, financial institutions, Ministry of Transport and Construction of the Slovak Republic
Website	https://byvajteusporne.sk
Supported interventions	<i>Improvements in the thermal performance of buildings and building technical systems</i>
Average renovation level	Medium
Minimum EE criteria	
Brief description of scheme	Grant from the Single-family Building Insulation Support Programme via the Ministry of Transport, Construction and Regional Development. A grant is awarded for up to 30 % of the eligible costs of thermal insulation, up to a maximum of EUR 6 000 per single-family building. An allowance of up to EUR 500 is also granted for the production of design documentation and an energy performance certificate. The programme budget is EUR 30 million.
Budget, funding sources and investments achieved so far	
EU support	-
Funding sources	Unknown
Total budget	EUR 30,000,000
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	State Housing Development Fund
Geographical level	National
Type of policy	Loan
Targeted sectors	Residential (all)
Beneficiaries	<i>Building professions, general public, housing associations, landlords, owners</i>
Dissemination	Website
Eligibility conditions	Interior area is not higher than 80 m ² (multi-family houses) or 120 m ² (single family houses).
Implementation period	2014 - 2020
Implementation body	Ministry of Transport and Construction, central government, energy agencies, financial institutions
Website	https://www.sfrb.sk
Supported interventions	<i>Improvements in thermal performance of residential buildings: building envelope, roof, windows, doors, inner walls between heated and non-heated space, etc.</i>
Average renovation level	High
Minimum EE criteria	35% reduction of the heat compared to the original condition.
Brief description of scheme	The State Housing Development Fund was established in 1996 under Act No 124/1996 on the State Housing Development Fund. It provides support for the expansion and modernisation of housing stock, particularly in the form of long-term loans with lower interest rates than commercial banks. The Fund provides support for improvements in the thermal performance of multi-family buildings with resources from the State Housing Development Fund. Soft loans with reduced interest are granted by the State Housing Development Fund for the renovation of buildings resulting in a 35% reduction in the heat required for space heating compared to the original condition.
Budget, funding sources and investments achieved so far	
EU support	<i>Expenditure financing operations provided from EU funds in 2019 amounted to EUR 64,230,854.50</i>
Total budget	EUR 533,600,000
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of interventions/measures	28593 in 2019

Name of scheme/programme	Munseff (for renovation of multifamily buildings)
Geographical level	National
Type of policy	Loan
Targeted sectors	Multi-family houses
Beneficiaries	<i>Building professions, general public, housing associations, landlords</i>
Dissemination	Website
Implementation period	2014 - 2030
Implementation body	Central government, European Bank
Website	http://www.munseff.eu
Supported interventions	<i>Upgrade of space heating system, replacement of boilers, installation of heat exchanger stations, modernisation of mechanical equipment; replacement of windows and doors with more energy-efficient versions; thermal insulation of buildings; renovation of lighting; installation of solar thermal panels.</i>
Brief description of scheme	MUNSEFF is a credit line to support the development of energy efficiency and renewable energy sources among towns and municipalities in Slovakia. This support is provided by the European Bank for Reconstruction and Development. The programme is implemented in Slovakia b Slovensk sporite a. s. and V eobecn verov banka, a.s. The MUNSEFF programme enables applicants to receive a grant covering part of the loan principal; the amount of the grant depends in part on the scope of the project or the amount of energy saved. Under the MUNSEFF programme, multi-apartment buildings with renovation projects aimed at increasing energy efficiency may apply for soft loans, grants or the free assistance of a design consultant.
Budget, funding sources and investments achieved so far	
EU support	<i>Funds provided by European Bank for Construction and Development</i>
Funding sources	European Bank for Reconstruction and Development: 98%
	Local authorities: 2%
Total budget	EUR 15,900,000 in 2014 - 2015
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	SlovSEFF II and III (for renovation of multifamily buildings)
Geographical level	National
Type of policy	Grant
Targeted sectors	Multi-family houses
Beneficiaries	<i>Building professions, general public, housing associations, landlords</i>
Dissemination	Website
Implementation period	2010 - 2030
Implementation body	Enviros (consultant), FactorCO2 (consultant), Allplan (verification consultant), Slovenská sporiteľna, a.s. (bank), VÚB Bank, a.s., OTP Banka Slovensko, a.s., UniCredit Bank Czech Republic and Slovakia, a.s.
Website	http://www.slovseff.eu/index.php/en/
Supported interventions	<i>Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems</i>
Brief description of scheme	Through the Slovseff III programme, a bonus is provided under the Green Investment Scheme, which is financed by proceeds from greenhouse gas emission allowances. SlovSEFF and SlovSEFF II and III have been developed by the European Bank for Reconstruction and Development (EBRD) as a means for financing sustainable energy projects. SlovSEFF was launched with a value of EUR 60 million and extended in 2010 with additional funding sources of EUR 90 million from the EBRD, intended for local banks. The funding source for grants and technical assistance was the Bohunice International Decommissioning Support Fund (BIDSF). The loan is granted by contracted commercial banks and the applicant is entitled to a grant upon reaching the required level of energy savings. Grants under SlovSEFF III are funded from the profits of innovative emission credit transactions between the Slovak and Spanish governments. Under the terms of the contract, Slovakia allocated profits from the sale of permits to projects aimed at reducing additional greenhouse gas emissions in Slovakia. Only private sector entities, including housing companies and cooperatives, are eligible applicants.
Budget, funding sources and investments achieved so far	
EU support	<i>Funds provided by European Bank for Construction and Development</i>
Funding sources	European Bank for Construction and Development: 81% Government of Spain: 19%
Total budget	EUR 47 693 800
Impact achieved so far	
Level of overall impact of scheme	Unknown
Achieved energy savings	75 702 MWh/y (SlovSEFF III)
Achieved GHG reduction	18 236 tCO2e/y (SlovSEFF III)

Name of scheme/programme	IROP (Integrated Regional Operational Programme)
Geographical level	National
Type of policy	Grant
Targeted sectors	<i>Residential, Commercial, Public</i>
Beneficiaries	<i>Building professions, general public, housing associations, landlords</i>
Dissemination	Website
Implementation period	2014-2020
Implementation body	Central government
Website	https://www.sfrb.sk/ropi/
Supported interventions	<i>Complex renovation of multifamily buildings</i>
Average renovation level	High
Brief description of scheme	Multi-family buildings will undergo major renovation with resources from the IROP (2014-2020) and the Slovseff III programme. Projects under the IROP (2014-2020) are expected to be implemented from 2018 (also for public buildings, including schools, are taken up as quickly as possible).
Budget, funding sources and investments achieved so far	
Funding sources	Unknown
Total budget	EUR 139 250 000 in 2017-2020
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme/programme	Single-family Building Insulation Support Programme (grants for energy renovation)
Geographical level	National
Type of policy	Grant
Targeted sectors	Residential (all)
Beneficiaries	<i>Housing associations, landlords</i>
Dissemination	Select dissemination type
Implementation period	2016-2020
Implementation body	Central government
Supported interventions	Insulation of building envelope
Average renovation level	Select level
Minimum EE criteria	
Brief description of scheme	In 2016, the Single-family Building Insulation Support Programme was announced. A further EUR 30 million from the central government budget was allocated to this programme.
Budget, funding sources and investments achieved so far	
Funding sources	Unknown
Total budget	EUR 40 375 000 in 2017-2020
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	95 in 2016

Spain

Name of scheme	Grants to improve energy efficiency in public schools
Geographical level	The program is improved by the regional administration, and it's directed to municipalities
Name of region or city	Comunidad de Castilla y León
Type of policy	Grant
Targeted sectors	Education (public schools)
Beneficiaries	Public authorities (municipalities with over 20.000 inhabitants)
Dissemination	Meetings with municipalities over 20000 population were held. Besides, information was available in website.
Eligibility conditions	<ul style="list-style-type: none"> - Municipalities over 20000 inhabitants. - Schools built before 1990 - Early childhood and primary schools, or primary schools - Over 15 units (classrooms)
Implementation period	Initially actions could be carried out until October 2020. Due to Covid-19, it is planned to extend the period until September 2021.
Implementation body	Consejería de Economía y Hacienda de Castilla y León
Website	https://www.tramitacastillayleon.jcyl.es/web/jcyl/AdministracionElectronica/es/Plantilla100Detalle/1251181050732/Ayuda012/1284918620870/Propuesta
Supported interventions	Insulation of the building envelope, improvement of energy efficiency in heating and cooling installations, improved energy efficiency in lighting, installation of control systems Improved energy efficiency in elevators
Average renovation level	Medium
Minimum EE criteria	CTE-DB-HE1 (for existing buildings, Technical Code of building, approved by "Real Decreto 314/2006"
Brief description of scheme	Comprehensive actions are promoted in old and medium-large schools to achieve larger energy savings, through the joint implementation of different measures. In addition, acting in schools has a disseminating effect of energy efficiency measures among students and families.
Budget, funding sources and investments achieved so far	
EU support	Operative Program ERDF Castilla y León 2014-2020
Funding sources	ERDF: 50% Regional budget: 50%
Total budget	4500000 (2019-2020)
Average annual budget	2,250,000
Total accrued investments	6500000 (2019-2020)
Average annual investments	3,250,000
Impact achieved so far	
Level of overall impact	Medium
Total number of buildings	14 (2019-2020)
Total number of interventions/measures	42 (2019-2020)
Total number of applications	62 measures for 24 buildings (2019-2020)
Achieved energy savings	2091370 kWh/year (2019), 614577 kWh/year (2020)
Achieved GHG reduction	10890,60 tCO ₂ /year (2019) 841,19 tCO ₂ /year (2020)
Other benefits or impact	Disseminating effect of energy efficiency measures among students and families.

Name of scheme	Plan Vivienda 2018-2021
Geographical level	Regional (Part of the budget come from national level, part of the budget come from regional level. Fund management is at regional level)
Name of region or city	Catalunya
Type of policy	Grant (it can be combined with Scheme 2 / CF 3.2.)
Targeted sectors	Single and multi family houses
Beneficiaries	Homeowners
Dissemination	Website (http://habitatge.gencat.cat/ca/detalls/Tramits/Ajuts-per-a-la-reabilitacio-dedificis-dus-residencial?category=74c016ba-a82c-11e3-a972-000c29052e2c)
Eligibility conditions	The programme includes grants for Conservation/Accessibility and Sustainability. For sustainability the eligibility conditions are: -Built before 2007 - 70% of the building is for residential propose
Implementation period	2018-2021 with an annual call
Implementation body	Housing Agency of Catalonia
Website	http://agenciahabitatge.gencat.cat
Supported interventions	Any of EE/RES interventions can be supported. In case of energy efficiency of H&C or HW improvements, the intervention should be combined with envelop improvements. Other intervention supported: acoustic isolation improvement, water consumption reduction, waste management improvements, green roof and façade, e-mobility and sustainable mobility, radon concentration reduction
Average renovation level	Medium
Minimum EE criteria	In case of envelope improvement, new H&C or HW systems or renovated ones, and energy efficiency off building installations as lighting or lifts, a 25-35% energy demand should be achieved, without taking into account energy efficiency of installed systems, (the % depends on climate zone where the intervention is done)
Brief description of scheme	The program was preceded by another one from 2013-2017. Energy requirements has been slightly revised in this new program. Energy Efficiency requirements are linked to energy measures only and related on Climate Zone. The energy requirements are referred to Energy Demand reduction firstly, without taking into account heating and cooling systems. This means that it is a program focused on envelop improvements. This 2020, Housing Agency has included a new measure about RES in which is not necessary to improve building envelop first.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	National government: 50% Catalan Government: 50% (additional budget for RES)
Total budget	EUR 25.600.000 (2018-2020) Annual budget is defined in each call (EUR 8.800.000 in 2018/EUR 8.400.000 2019)
Average annual budget	8.400.000,00 EUR
Impact achieved so far	
Level of overall impact of scheme	Low
Total number of buildings	54 (grant programme of 2018-2019)
Total number of interventions/measures	67 (grant programme of 2018-2019)
Total number of applications	1211 (including other non EE renovation measures) in 2018-2019
Achieved energy savings	40-47% energy demand (without taking into account energy performance of H&C and hot water systems) in 2018-2019
Achieved GHG reduction	747 ton CO2 eq/year (2018-2019)
Other benefits or impact	Thermal comfort and well-being improvements, awareness increase of energy saving improvements of owners and the sector, acceleration of sector transition to deep renovation, SME support.

Name of scheme	Plan Vivienda 2018-2021 (social housing managed by Housing Agency of Catalonia)
Geographical level	Regional
Name of region or city	Catalunya
Type of policy	Grant (it can be combined with Scheme 2 / CF 3.1)
Targeted sectors	Single and multi-family houses
Beneficiaries	Homeowners
Dissemination	Website
Eligibility conditions	"The programme includes grants for ConservatioN/Accessibility and Sustainability. For sustainability the eligibility conditions are: 1. built before 2007 and 2. 70% of the building is for residential propose
Implementation period	2018-2021 with an annual call
Implementation body	Housing Agency of Catalonia
Website	http://agenciahabitatge.gencat.cat
Supported interventions	Any of EE interventions can be supported. In case of energy efficiency of H&C or HW improvements, the intervention should be combined with envelope improvements. Other intervention supported: acoustic isolation improvement, water consumption reduction, waste management improvements, green roof and façade, e-mobility and sustainable mobility, radon concentration reduction
Average renovation level	Medium
Minimum EE criteria	In case of envelop improvement, new H&C or HW systems or renovated ones, and energy efficiency off building installations as lighting or lifts, a 25-35% energy demand should we achieved, without taking into account energy efficiency of installed systems, (the % depends on climate zone where the intervention is done)
Brief description of scheme	The program was preceded by another one from 2013-2017. Energy requirements has been slightly revised in this new program. Energy Efficiency requirements are linked to energy measures only and related on Climate Zone. The energy requirements are referred to Energy Demand reduction firstly, without taking into account heating and cooling systems. This means that It is a program focused on envelop improvements. This 2020, Housing Agency has included a new measure about RES in which is not necessary to improve building envelop first.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	National government: 50% Catalonian Government: 50% (additional budget for RES)
Total budget	It is defined in each annual call (EUR 2,000,000)
Average annual budget	EUR 2,000,000 (2020)
Impact achieved so far	
Level of overall impact of scheme	Low
Total number of buildings	No data available yet (New programme)

Name of scheme	ICF3.2. Loans for renovation of exiting buildings
Geographical level	Regional
Name of region or city	Catalunya
Type of policy	Loan (it can be combined with Scheme 1/ Plan Vivienda 2018-2021)
Targeted sectors	Single and multi family houses
Beneficiaries	Homeowners
Dissemination	Website
Eligibility conditions	The programme includes loans for ConservatioN/Accessibility and Sustainability. For sustainability the eligibility conditions are: -Built before 2007 - 70% of the building is for residential propose
Implementation period	2020 first call
Implementation body	Housing Agency of Catalonia
Website	http://agenciahabitatge.gencat.cat
Supported interventions	Any of EE interventions can be supported. In case of energy efficiency of H&C or HW improvements, the intervention should be combined with envelop improvements. Other intervention supported: acoustic isolation improvement, water consumption reduction, waste management improvements, green roof and façade, e-mobility and sustainable mobility, radon concentration reduction
Average renovation level	Medium
Minimum EE criteria	In case of envelope improvement, new H&C or HW systems or renovated ones, and energy efficiency off building installations as lighting or lifts, a 25-35% energy demand should be achieved, without taking into account energy efficiency of installed systems, (the % depends on climate zone where the intervention is done)
Brief description of scheme	The program was preceded by another one from 2013-2017. Energy requirements has been slightly revised in this new program. Energy Efficiency requirements are linked to energy measures only and related on Climate Zone. The energy requirements are referred to Energy Demand reduction firstly, without taking into account heating and cooling systems. This means that It is a program focused on envelop improvements. This 2020, Housing Agency has included a new measure about RES in which is not necessary to improve building envelop first.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	(Housing Agency of Catalonia) Catalonian Government: 100%
Total budget	EUR 10,000,000 (2020)
Average annual budget	EUR 10,000,000
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	No data available yet (New programme)

Name of scheme	ICF3.1. Loans for renovation of exiting buildings (social housing managed by Housing Agency of Catalonia)
Geographical level	Regional
Name of region or city	Catalunya
Type of policy	Loan (it can be combined with Scheme 2 (Plan Vivienda 2018-2021_social housing))
Targeted sectors	Single and multi family houses
Beneficiaries	Homeowners
Dissemination	Website
Eligibility conditions	The programme includes loans for ConservatioN/Accessibility and Sustainability. For sustainability the eligibility conditions are: -Built before 2007 - 70% of the building is for residential propose
Implementation period	2020 (first call)
Implementation body	Housing Agency of Catalonia
Website	http://agenciahabitatge.gencat.cat
Supported interventions	Any of EE interventions can be supported. In case of energy efficiency of H&C or HW improvements, the intervention should be combined with envelope improvements. Other intervention supported: acoustic isolation improvement, water consumption reduction, waste management improvements, green roof and façade, e-mobility and sustainable mobility, radon concentration reduction
Average renovation level	Medium
Minimum EE criteria	In case of envelop improvement, new H&C or HW systems or renovated ones, and energy efficiency off building installations as lighting or lifts, a 25-35% energy demand should be achieved, without taking into account energy efficiency of installed systems, (the % depends on climate zone where the intervention is done)

Brief description of scheme	The program was preceded by another one from 2013-2017. Energy requirements has been slightly revised in this new program. Energy Efficiency requirements are linked to energy measures only and related on Climate Zone. The energy requirements are referred to Energy Demand reduction firstly, without taking into account heating and cooling systems. This means that It is a program focused on envelop improvements. This 2020, Housing Agency has included a new measure about RES in which is not necessary to improve building envelop first.
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	(Housing Agency of Catalonia) Catalonian Government: 100%
Total budget	EUR 5,000,000 (2020)
Average annual budget	EUR 5,000,000 (2020)
Impact achieved so far	
Level of overall impact of scheme	Unknown
Total number of buildings	No data available yet (New programme)

Name of scheme	Plan Renove de Salas de Caldera de la Comunidad de Madrid (Renewal Plan for Boiler Rooms)
Geographical level	Regional
Name of region or city	Comunidad de Madrid (ES3)
Type of policy	Grant
Targeted sectors	Multi-family houses and Commercial >70kW
Beneficiaries	Homeowners or tenants (whoever makes the investment)
Dissemination	Website and press release
Eligibility conditions	Replacement of non Natural Gas boilers with Condensing Natural Gas boilers
Implementation period	From July 24 th 2020 to December 31 st 2021
Implementation body	Comunidad de Madrid Government through FENERCOM (Energy foundation of Madrid)
Website	https://www.fenercom.com/actuacion/renove-calderas-2020/
Supported interventions	Upgrade of technical systems
Average renovation level	High
Minimum EE criteria	Criteria to get the grant is to change of fuel (coal, diesel...) to Natural gas. Condensing natural gas boilers must have a minimum efficiency rate and are listed those which are eligible
Brief description of scheme	50% grant of total investment for coal fuel change in residential uses 30% grant of total investment for coal fuel change in commercial uses 20% grant of total investment for other fuels different from coal in residential uses 12% grant of total investment for other fuels different from coal in residential uses
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	EUR 900,000 (Until December 31 st 2021 or when funds are finished)
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	Plan Renove de Ascensores de la Comunidad de Madrid (Renewal Plan for Lifts)
Geographical level	Regional
Name of region or city	Comunidad de Madrid (ES3)
Type of policy	Grant
Targeted sectors	All sectors
Beneficiaries	All lift owners
Dissemination	Website and press release
Eligibility conditions	Registered lifts in Comunidad de Madrid
Implementation period	From July 23 rd 2020 to December 31 st 2021
Implementation body	Comunidad de Madrid Government through FENERCOM (Energy foundation of Madrid)
Website	https://www.fenercom.com/actuacion/plan-renove-ascensores-2020/
Supported interventions	Upgrade of technical systems
Average renovation level	Medium
Minimum EE criteria	Increase of energy efficiency
Brief description of scheme	- Replacement of gearmotor lifting system by gearless motor with VSD whenever it increases the efficiency: Up to 2.100EUR or 25% of total investment - Replacement of the lift illumination by led lights with automatic shutoff system in case of inactivity: Up to 100EUR or 25% of total investment

	- Installation of lift photoelectric sensors and weight scales for lifts older than 1999: Up to 250EUR or 25% of total investment
Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Unknown
Total budget	EUR 270000 until December 31st 2021 or when funds are finished
Average annual budget	Unknown
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	Plan Renove de Ventanas de la Comunidad de Madrid (Renewal Plan for Windows)
Geographical level	Regional
Name of region or city	Comunidad de Madrid (ES3)
Type of policy	Grant
Targeted sectors	Residential and Commercial
Beneficiaries	All
Dissemination	Website and press release
Eligibility conditions	Minimum glass surface replaced of window: 2m ²
Implementation period	From approval to December 31 st 2021
Implementation body	Comunidad de Madrid Government through FENERCOM (Energy foundation of Madrid)
Website	Not Yet Released
Supported interventions	Insulation of building envelope
Average renovation level	Medium
Minimum EE criteria	New windows shall meet minimum technical isolation requirements defined
Brief description of scheme	<ul style="list-style-type: none"> - 110EUR/m² of glass installed - Not more than 25% of the investment - Limit of 50.000EUR per beneficiary
Budget, funding sources and investments achieved so far	
EU support	Not Yet Released
Funding sources	Unknown
Total budget	EUR 900000 Until December 31st 2021 or when funds are finished
Average annual budget	N.A.
Impact achieved so far	
Level of overall impact of scheme	Unknown

Name of scheme	HolaDomus
Geographical level	Municipality/city
Name of region or city	Olot, Province of Girona, Catalonia, Spain
Type of policy	HolaDomus offers financing to homeowners that can be combined with grants and subsidies
Targeted sectors	Residential (all)
Beneficiaries	The main beneficiaries are homeowners as they get Technical Assistance to advice and support them in the implementation of measures. As secondary beneficiaries, local contractors who get training, tools and resources that trigger more renovation projects stimulating business.
Dissemination	Local media (newspapers, radio, TV), OSS, brochures, meetings with associations and local entities, brochures, website, Olot municipality.
Eligibility conditions	All residential properties are eligible as the main focus is in Energy Efficiency improvement. However, the program also gives technical support and finance to projects aiming to increase comfort, security, and non-energy improvement in houses and buildings. The eligibility criteria is minimum to include vulnerable groups thanks to the Social Guarantee Fund de-risking scheme
Implementation period	The program was launched on the first quarter of 2020
Implementation body	EuroPACE Foundation (co-participated between Municipality of Olot and GNE Finance)
Website	https://www.holadomus.com/
Supported interventions	Insulation of building envelope, upgrade of technical systems, installation of RES systems, installation of control systems
Average renovation level	High
Minimum EE criteria	Double jump (from E to C) in the Energy Certificate Classification
Brief description of scheme	In the One-stop-shop, HolaDomus representative provides technical assistance, customized financing options, and advises homeowners to apply for grants and subsidies.
Budget, funding sources and investments achieved so far	
Does the program receive EU support (e.g. Cohesion funds, ERDF, etc.)?	Holadomus program is the commercial result of the H2020 Funded EuroPACE project (https://www.europace2020.eu)

Funding sources	EU: 100%
Total budget	EUR 2,400,000 (3 years)
Total accrued investments	EUR 1100000 for 8 months (From February to September 2020)
Impact achieved so far	
Level of overall impact of scheme	Medium
Total number of buildings	36
Total number of interventions/measures	36
Total number of applications	51

Name of scheme	Renovem els Barris - Pilot Phase in the Street of Pirineus
Geographical level	Municipality/city
Name of region or city	Santa Coloma de Gramenet, together with Barcelona Metropolitan area
Type of policy	Zero interest loans or reimbursable subsidies (the latter only addressed to flat owners with annual revenues of less than EUR20 000)
Targeted sectors	Mainly the residential sector (condominiums and single family houses)
Beneficiaries	Homeowners
Dissemination	Interactive meetings among members of the city council and residents, owners, and neighbours. Three levels of meetings: general, communitarian, individual.
Eligibility conditions	Not specified, but the cost that each owner had to pay varied depending on the scope of the intervention in each building.
Implementation period	2013-2017
Implementation body	City Council of Santa Coloma de Gramenet
Website	https://www.nweurope.eu/media/7003/ace_fiche_municipalities_santacoloma_final-version.pdf
Supported interventions	Insulation of building envelope
Average renovation level	Unknown
Minimum EE criteria	Not specified
Brief description of scheme	<p>The project is based on a public-private collaboration among the Council of Santa Coloma, owners and residents' communities, Fondo Alto-Pirineus Neighbours' Association, research institutes and construction companies.</p> <p>The City Council acted as a project manager coordinating, intervening and providing financing resources in all the phases of the project.</p> <p>The owners' communities only carried out the implementation of the works. Research institutes, collaborated in carrying out the energy audit of the buildings.</p> <p>Architectural and engineering firms collaborated in the design and in the implementation phase. Finally, the Barcelona Metropolitan Housing Consortium provided financial resources in the implementation phase and the Catalonia Architects School association (COAC) collaborated in the evaluation phase.</p> <p>The Council of Santa Coloma de Gramenet offered financial support to owners through three payment modalities:</p> <ul style="list-style-type: none"> - 60 monthly instalments during 5 years without interest (average monthly payment for house around EUR60). - 50-50 payment without interests: payment of 50% at the beginning of the works and 50% at the end. - Registration of the debt in the property register: the Council advanced the money as a reimbursable subsidy and it was addressed to flat owners with annual revenues of less than EUR20 000. The owners will pay the money back when the property is transmitted in inheritance or purchase and sale.

Budget, funding sources and investments achieved so far	
EU support	No
Funding sources	Barcelona Metropolitan Area
Total budget	EUR 2,080,600
Average annual budget	2015: 7% 2016: 46,5% 2017: 46,5%
Impact achieved so far	
Level of overall impact of scheme	High
Total number of buildings	26 condominiums and 6 single family houses, involving 1 100 inhabitants and 649 owners. Among the flats, 360 were destined for habitation and 26 (the ground floor) were commercial.
Achieved energy savings	between 36% and 44%
Achieved GHG reduction	between 36% and 45%

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Publications Office
of the European Union

doi:10.2760/52526

ISBN 978-92-76-41141-3