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Report on public support to industry investment on energy

WP T1: Activity 1.4 Analysis of investments for industry low carbon energy transition

The report collects inputs (back desk and consultation) from users of all areas with the analysis of Industrial investments supported by Public Resources concerning energy efficiency and renewable energy sources. A SWOT analysis identifying limits, benefits and bottlenecks completes the analysis.

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Introduction

The FIRECE project aims to contribute to the achievements of targeted results of Regional Energy Plans through an increased use of (innovative) financial instruments in the Central Europe area. The particular focus is on public support to industry to invest into energy efficiency and renewable energy sources.

The report sums up available data (desk research and consultations) from users of all areas on existing financial support mechanisms for energy efficiency and use of renewable energy sources (RES) in industry. It provides an overview of industrial investment supported by public resources and a SWOT analysis that identifies limits, benefits and bottlenecks of the current schemes.

1 Financial mechanisms for energy projects

For financing of energy efficiency and RES projects, investment and related expenditures, the following financial mechanisms are available for industry (and private sector in general):

- ERDF funding through national and/or regional Operational Programmes;
- National and regional public funds;
- Financial instruments (e.g. loans, guarantees);
- Energy Performance Contracting (EPC).

1.1 ERDF Funding

The European Regional Development Fund (ERDF), one of the European Structural and Investment Funds, contributes to smart, sustainable and inclusive growth, as well as aims to reinforce economic, social and territorial cohesion in EU regions and cities.¹

At the level of Member States, it is implemented through national and/or regional Operational Programmes (OP). While in countries with centralized administration and governance, national OPs play a more important role, in countries with a higher level of autonomy of regions, regional OPs are often implemented.

¹ <https://www.fi-compass.eu/esif/erdf>



ERDF funding is intended for support of investment projects and is provided primarily in a form of grants. However in several countries, the OPs operators have already introduced schemes, under which OPs are used to provide soft loans or schemes that combine grants and soft loans.

It is supposed that ERDF funding will be provided increasingly through financial instruments, which is the intention of the European Commission. It will enable to support a wider range of projects as the financial sources will be used repeatedly.

1.2 National and Regional Public Funds

Apart from ERDF funding, Members States provide subsidies from state/regional budget through their national/regional programmes. These programmes are often used to support projects that cannot be funded from Operational Programmes, and thus are complementary to ERDF funding.

It can include small scale investment projects, but also “soft” projects such as energy audits, energy analyses, project preparatory works, implementation of energy management, etc.

1.3 Financial Instruments

In a broader sense, financial instruments can be understood as non-subsidy financial products such as credits, preferential loans, guarantees, etc. They can be provided in several forms and by different institutions:

- Standard financial products offered by commercial banks;
- Credit lines of international financial institutions (e.g. EBRD, EIB, etc.) operated by commercial banks;
- Financial products offered by national development banks;
- Combination of ERDF funding and financial instruments operated by OPs operators.

The FIRECE project focuses only on those financial instruments that involve public money; purely commercial financial products are excluded.



1.3.1 Combination of ERDF funding and financial instruments

Financial instruments within ERDF funding represent a modern way of providing support from the European Structural and Investment Funds. Through provision of such instruments, financial products such as loans, guarantees or other risk-sharing instruments are created from public sources.

This type of financial instruments support economically viable projects and contribute to maximizing the impact of EU (and national) resources. The main benefits of financial instruments compared to grants can be seen in the following areas:

- More efficient allocation of public funds: supported projects need to demonstrate better financial results (return on investment) than subsidized projects;
- Revolving of funds: invested funds return back and an operator earns additional money from interests; the returned funds serve to finance further projects.
- Leverage effect: In the case of certain financial instruments, private equity is attracted and directly involved to finance projects, which reduces a burden on public budgets.

It is planned that financial instruments provided through ERDF will play much more important role in the next financing period 2021-2027. The European Commission intends to reduce the overall budget for the Cohesion Policy, which will make it necessary to gradually decrease the volume of direct subsidies, replace them with financial instruments, and encourage private investment. To this end, the European Commission is planning to simplify the rules for the use of financial instruments, in particular to make it easier to combine them with subsidies.

1.3.2 Financing through development banks

National development banks are financial institution, created by a country's government, that provide financing for the purposes of economic development of the country - which may include also energy-related financing programmes.

Similarly to national public funds, their programmes usually complement the ERDF funding; however at the same time, they make use of the benefits of financial instruments described above.



1.3.3 Credit lines of international financial institutions

The credit line are financial means provided by the International Financial Institutions (e.g. EBRD, EIB) through the local Participating Banks to finance resource efficiency, energy efficiency and renewable energy investment opportunities.

The credit line is usually supported by a comprehensive technical assistance package that underpins the demand for the financial facility, helps the borrowers to prepare loan applications and educate local bank officers in sustainable energy investment opportunities, credit appraisal methods and improving the investment climate.

1.4 Energy Performance Contracting

Energy Performance Contracting (EPC) encompasses development, performance and financing of projects to improve energy efficiency and reduce operating and maintenance costs in buildings and technological units. Measures of investment as well as non-investment nature are used.

The service is delivered by Energy Service Companies (ESCOs) who ensure identification of energy savings measures, their implementation and financing, and provide a contractual guarantee that at least contracted energy savings will be achieved over a duration of the contract (usually 5 - 10 years).

These savings (alternatively, also savings from other operational costs) are used to cover the investments costs. The cost savings risk is taken by ESCO because in case that the guaranteed amount of savings is not reached, ESCO pays the customer the difference. During the whole contractual period, an energy management and savings evaluation are ensured for the customer.

After the contractual period when the investment is repaid, ESCO steps out of the project and hands all the benefits over to the client.

ESCO service users can be private and public companies, institutions and local and regional government units. Although EPC is much more developed in public sector because private sector is still perceived by ESCO companies as too risky, there are examples of successful projects in industry.

It also must be pointed out that in many projects, EPC is not primarily about financing (client can finance the investment from its own budget or commercial loan), but other aspects play a more important role. These include energy management implementation and operation, guarantee of savings (and their



verification), and guarantee that the measure is implemented by a really capable company.

2 Public support mechanisms

The focus of the FIRECE project is on financial mechanisms that are provided by public operators or that are provided by private operators however with involvement of public financial sources. From the previous general overview, the following mechanisms are considered by the project:

- ERDF funding - operational programmes at national level;
- ERDF funding - operational programmes at regional level;
- National public funds;
- Regional public funds;
- Local public funds;
- Financial instruments provided in combination with ERDF funding (operated by OPs operators);
- Financial instruments provided by national or regional development banks;
- Financial instruments provided by international financial institutions (through national commercial banks) - credit lines.

3 Financial mechanisms available in partner regions

In the project partners regions, an interesting number of financial mechanisms have been implemented. They include both funding in a form of grants (usually from ERDF) and financial mechanisms (often soft loans).

In countries with centralized administration and governance (e.g. Hungary, Czech Republic, Croatia), financial mechanisms are developed primarily at national level, while in countries with high level of decentralization (e.g. Italy, Germany), the participating regions mostly operate their own mechanisms.

The mechanisms have been analysed from different points of view, including types of mechanisms, types of measures that can be financed, and evaluation processes. At the same time, different types of trainings provided to operators of financial mechanisms have been explored.



3.1 Types of financial mechanisms

Regions from the new Member States (EU-13), such as for instance Poland or Hungary, still rely mostly on grants distributed from ERDF via Operational Programmes, regardless of centralization or decentralization of state administration and so the OPs implementation.

Even in regions/countries, in which an interesting number of financial instruments are being operated (e.g. Croatia, Czech Republic), the Operational Programmes substantially dominate in terms of volume of funding. For example in the Czech Republic, EUR 1.221 million is allocated for energy-related investment in the OP Enterprise and Innovation for Competitiveness, while the overall budget of all other relevant programs amounts only to EUR 110 million (i.e. 9%).

A better situation can be identified in old Member States (EU-15) where allocation from ERDF is no longer available in such a volume. Therefore, more significant amounts of funds are available from national or regional sources, and more often they are provided in a form of financial instruments, such as soft loans or revolving funds. However, the budget available from ERDF/OPs usually still prevails.

It can be concluded that in spite of several interesting examples of financial instruments from different regions, in most of them, there is still a potential for their introduction and wider use as well as for increase of their importance and volume of budget.

Table 1: Financial mechanisms for energy efficiency and renewable energy projects in industry

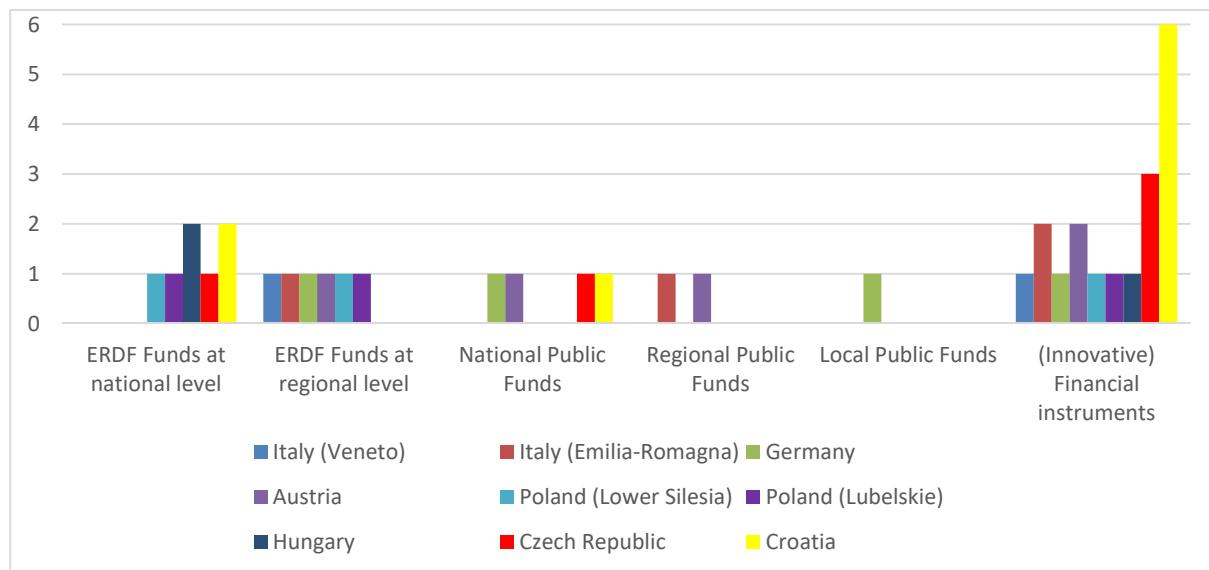
Country	ERDF Funds at national level	ERDF Funds at regional level	National Public Funds	Regional Public Funds	Local Public Funds	Financial instruments
Italy (Veneto)		1				1
Italy (Emilia-Romagna)		1		1		2
Germany (Saxony)		1	1		1	1
Austria		1	1	1		2
Poland (Lower Silesia)	1	1				1



Poland (Lubelskie)	1	1				1
Hungary	2					1
Czech Republic	1		1			3
Croatia	2		1			6

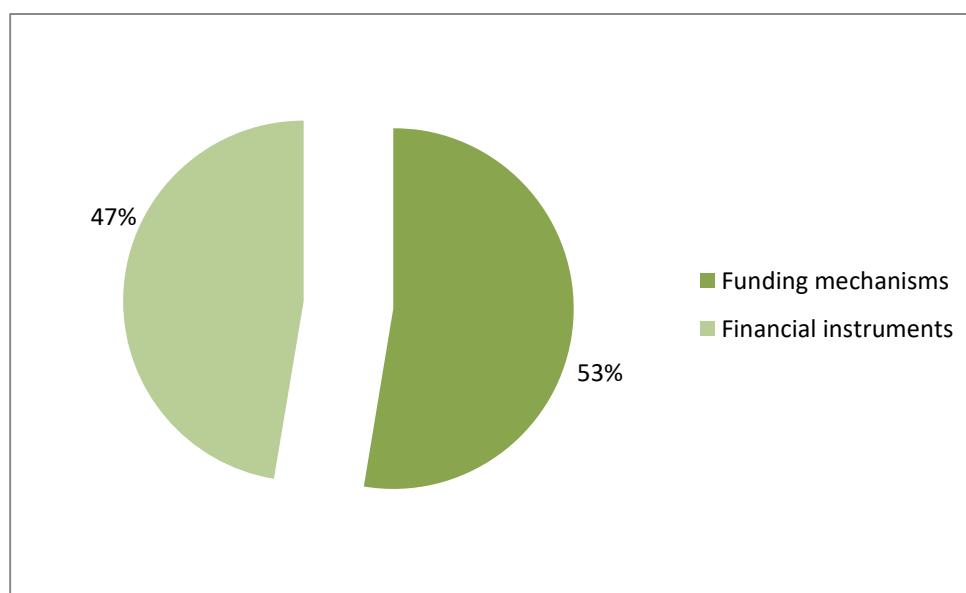
Source: Own, based on FIRECE survey

Figure 1: Types of financial mechanisms in partner regions



Source: Own, based on FIRECE survey

Figure 2: Proportion between funding mechanisms and financial instruments



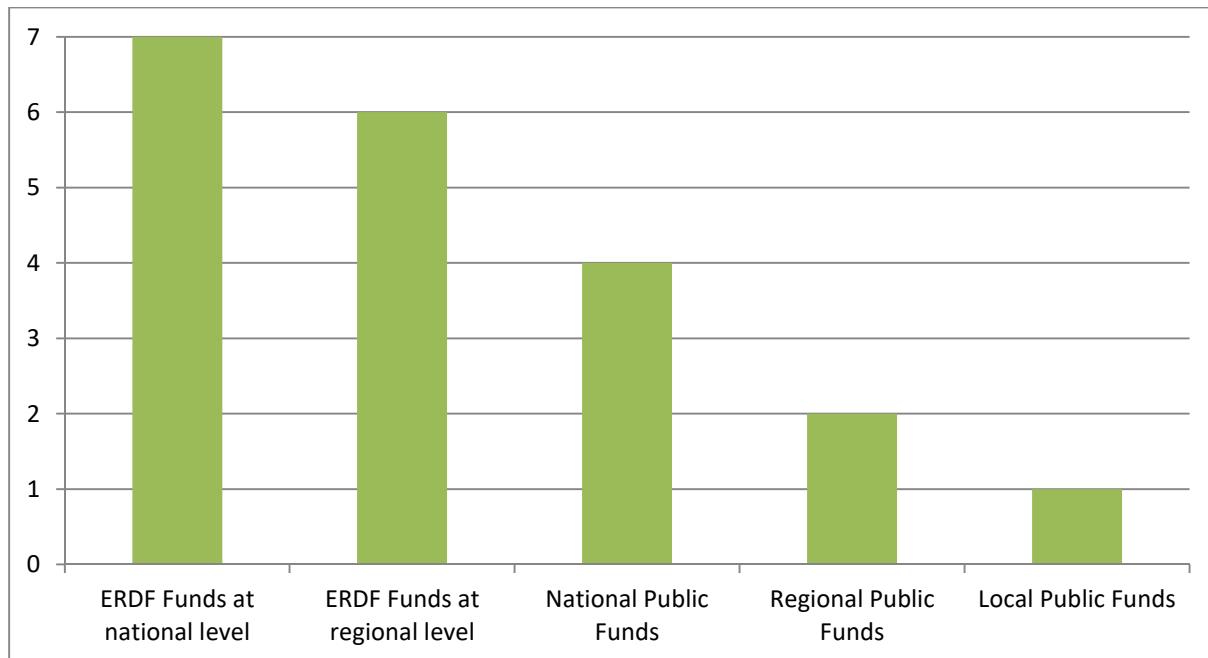
Source: Own, based on FIRECE survey



3.1.1 Funding mechanisms

As shown in figure 3 below, a majority of funding (grant) mechanisms is implemented in a form of ERDF Operational Programmes. About one third is provided from national or regional budget; however as already mentioned, a financial allocation for such funds is usually much lower.

Figure 3: Types of funding mechanisms



Source: Own, based on FIRECE survey

3.1.2 Financial instruments

Financial instruments are mainly provided in a form of soft loans; a small number of examples of other types of instruments can be identified (guarantees, vouchers, tax credits²).

The most frequent is a provision of soft loans from the ERDF or national or regional funds administered by public operators. However, soft loans programmes administered by national development banks (e.g. Czech Republic, Croatia) or through international financial institutions managed by commercial banks at national level (e.g. WeBSEFF credit line in Croatia) can be identified.

² Used in Veneto Region (Italy), vouchers represent a sort of personal coupons, which value is fixed and determined on the grounds of the kind of service an enterprise wishes to acquire for the realisation of a project; while tax-credits mean money deducted from total bills, which role is to incentive an enterprise to install newer machineries or implementing new procedures, etc.



In both Italian regions that participate in the project (Veneto, Emilia Romagna), revolving funds have been introduced recently combining public and private financial sources.

In some other countries (Czech Republic, Croatia), the use of Energy Performance Contracting through ESCO companies is in an advanced level of market implementation. Although majority of EPC projects are implemented in public sector, there are several interesting examples from industry as well.

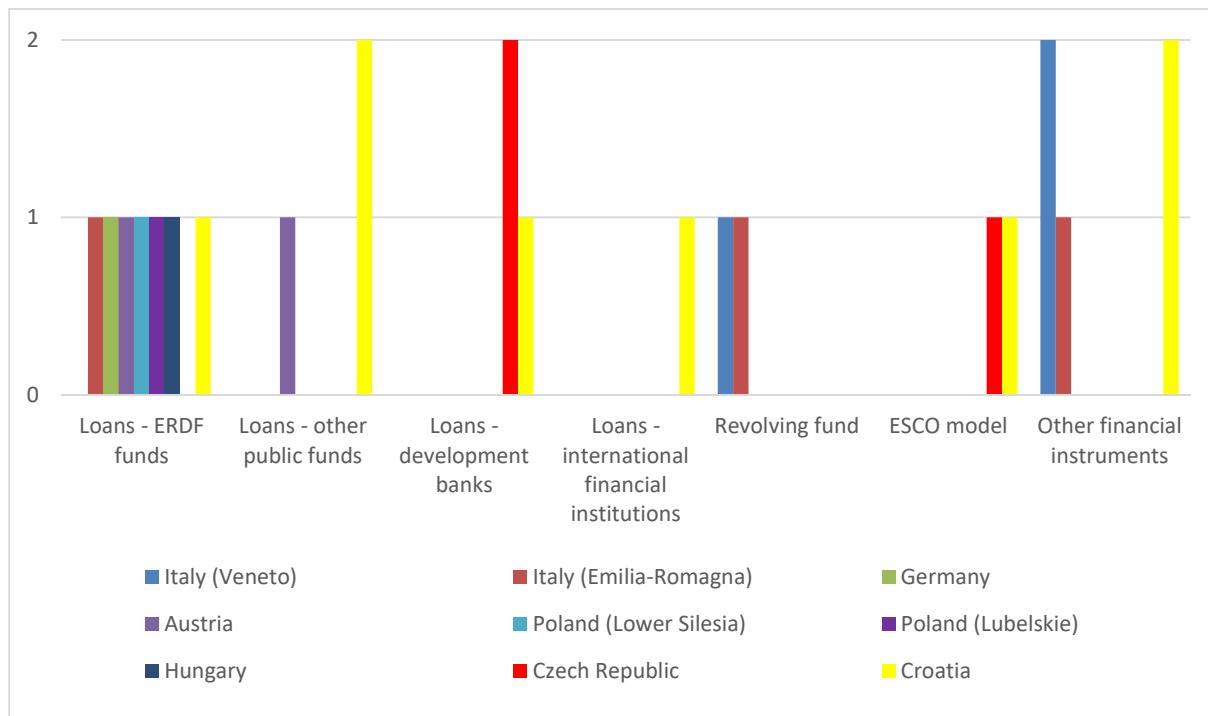
Table 2: Types of financial instruments

Country	Loans - ERDF funds	Loans - other public funds	Loans - development banks	Loans - international financial institutions	Revolving fund	ESCO model	Other FIs
Italy (Veneto)					1		2
Italy (Emilia-Romagna)	1				1		1
Germany (Saxony)	1						
Austria	1	1					
Poland (Lower Silesia)	1						
Poland (Lubelskie)	1						
Hungary	1						
Czech Republic			2			1	
Croatia	1	2	1	1		1	2

Source: Own, based on FIRECE survey

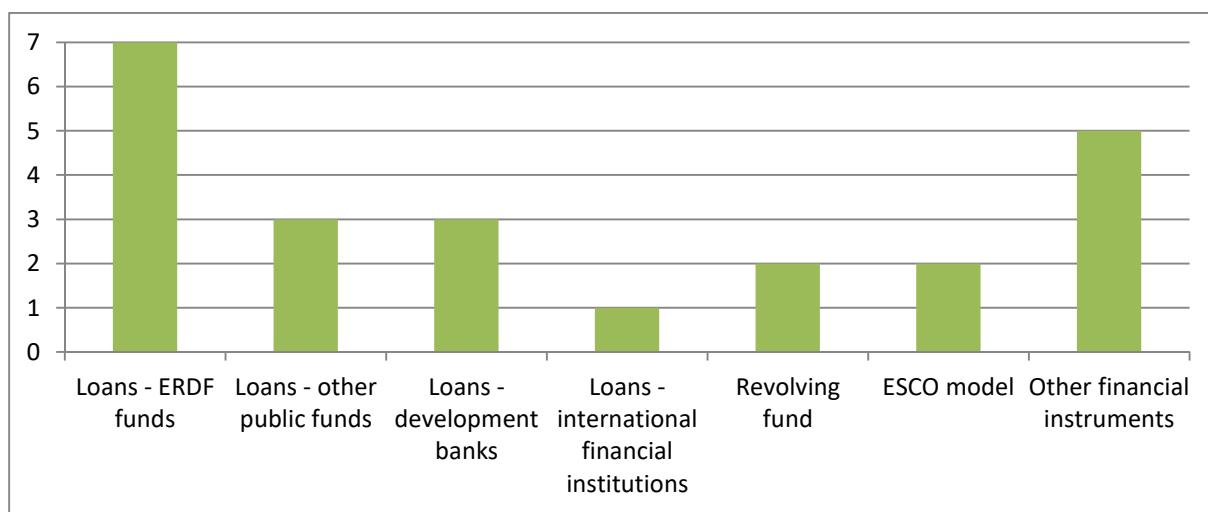


Figure 4: Types of financial instruments in partner regions



Source: Own, based on FIRECE survey

Figure 5: Types of financial instruments



Source: Own, based on FIRECE survey



3.2 Types of funded measures

The measures of investment nature are primarily subsidized, which includes measures to introduce a more energy efficient equipment, installation of efficient lighting, installation of renewable energy sources, etc. Only a limited amount of funds is available for “soft” projects, such as elaboration of energy audit or similar kind of energy analysis, implementation of energy management, introduction of energy management system, etc.

On the other hand, realization of the latter type of measures is supported indirectly by several programmes. For instance, some programmes require that an energy audit/assessment is carried out prior to application for an investment project. Moreover in case of certain programmes, an energy management system must become an integral part of the overall project.

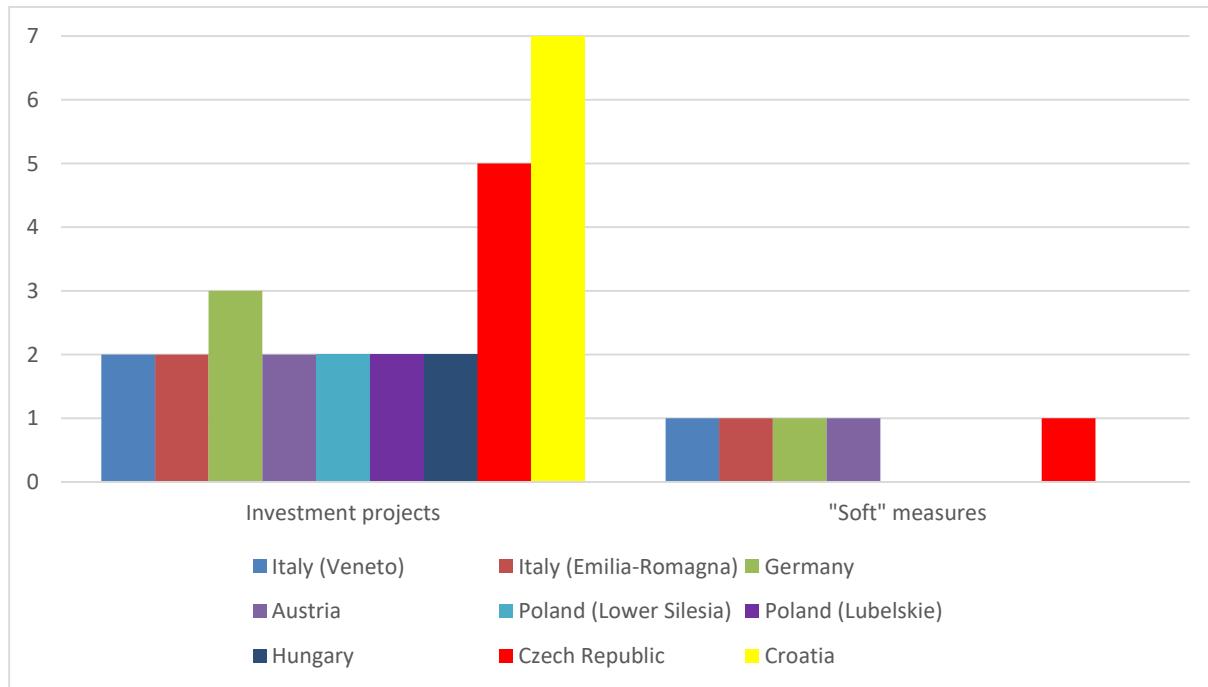
Table 3: Types of funded measures

Country	Investment projects	"Soft" measures
Italy (Veneto)	2	1
Italy (Emilia-Romagna)	2	1
Germany (Saxony)	3	1
Austria	2	1
Poland (Lower Silesia)	2	
Poland (Lubelskie)	2	
Hungary	2	
Czech Republic	5	1
Croatia	7	

Source: Own, based on FIRECE survey

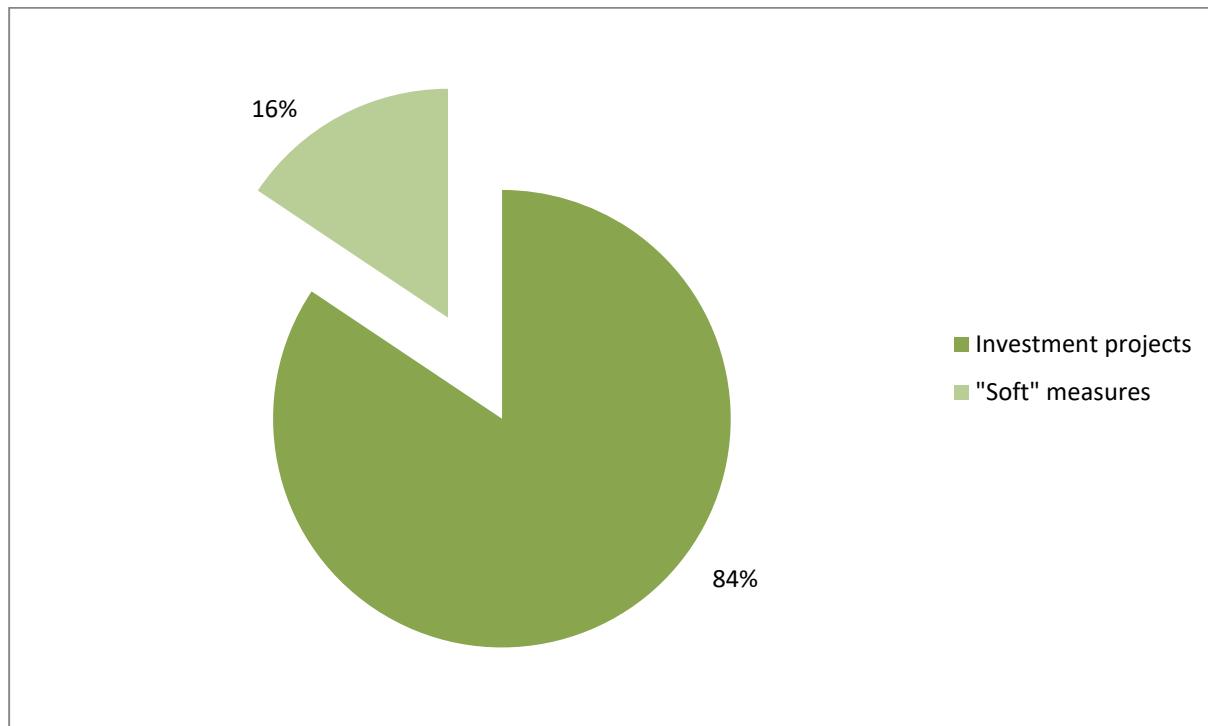


Figure 6: Types of funded measures in partner regions



Source: Own, based on FIRECE survey

Figure 7: Proportion between support for investment projects and "soft" measures



Source: Own, based on FIRECE survey



3.3 Evaluation of financial mechanisms

The evaluation of financial mechanisms is carried out in order to evaluate their efficiency and impact. It can be implemented in a form of ex-ante or ex-post evaluation:

- **Ex-ante evaluation** is a process that is carried out in a preparatory phase of a financial scheme development. The goal of this evaluation is to assess the financial scheme efficiency and expected impacts, and to improve its quality.
- **Ex-post evaluation** is a process that is carried out after a financial scheme implementation (in the final implementation stage). The goal of this evaluation is to assess overall performance of the financial scheme, achieved results and impacts (compared to what was planned/expected), efficiency of used financial resources, sustainability of the results, and to provide conclusions and recommendations for future programmes.

In all regions, the evaluation of financial mechanisms takes place; mostly in a form of both ex-ante and ex-post evaluation. Some regions implement only one type of evaluation.

However, the evaluations are not based on any standardized methodologies. In some cases, the operators use their own-developed tools (e.g. in MS Excel). Moreover in several cases, the evaluations are carried out only formally.

Table 4: Evaluation of financial mechanisms

Country	Ex-ante evaluation	Ex-post evaluation
Italy (Veneto)	1	1
Italy (Emilia-Romagna)	1	1
Germany (Saxony)		1
Austria		1
Poland (Lower Silesia)	1	1
Poland (Lubelskie)	1	1
Hungary	1	

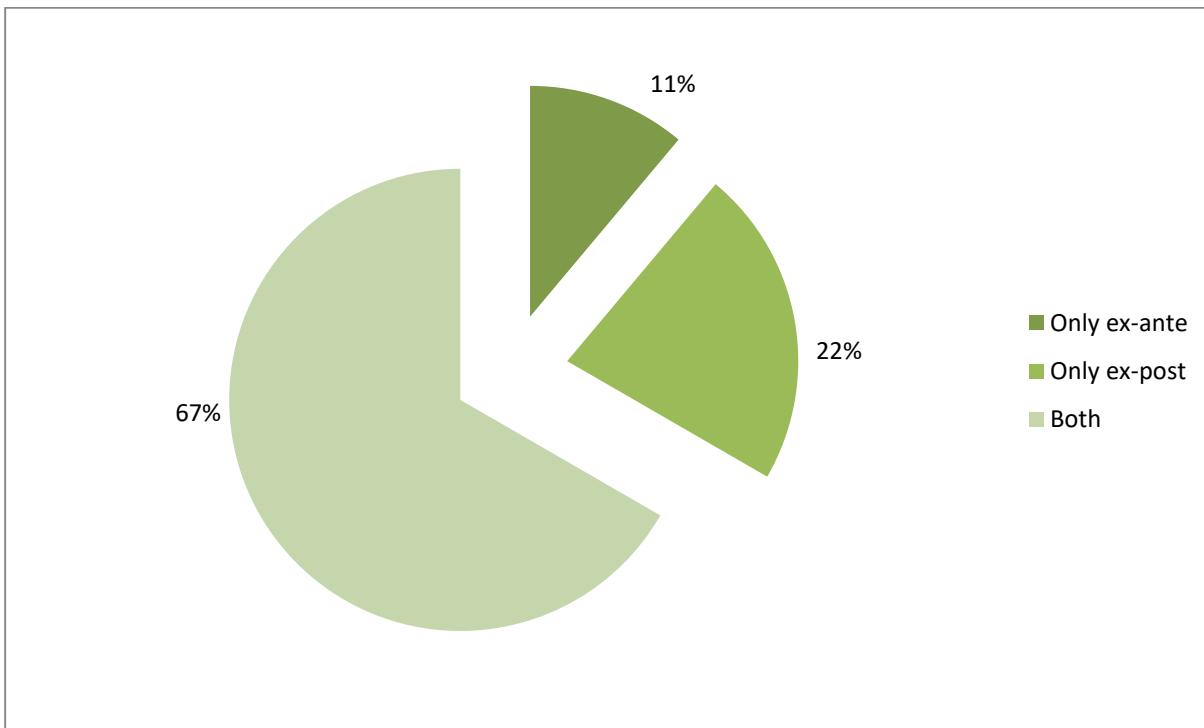


Czech Republic	1	1
Croatia	1	1

Source: Own, based on FIRECE survey

Note: Ex-post evaluation includes also evaluation that takes place during the implementation of the financial mechanisms (i.e. interim evaluation).

Figure 8: Evaluation of financial mechanisms



Source: Own, based on FIRECE survey

3.4 Training on financial mechanisms

In all project partner regions, trainings on financial mechanisms and related topics regularly take place. However it is evident that such trainings are designed primarily for regular staff (project managers) of the financing institutions, and less for designers of the programmes (i.e. coordinators and operators-managers).

Also a content of such trainings corresponds to the trainees. The trainings focus mainly on mandatory steps in a funding process, procedures for evaluation of project applications, procedures for monitoring and control of individual projects, state aid rules, etc. The topics of evaluation and monitoring of overall programs, and financial instruments development and implementation are missing.



4 SWOT analysis

Based on the issues discussed in the previous chapter, the following main strengths, weaknesses, opportunities and threats can be identified in the project partners' area as regards financial mechanisms provided by public sector to industry in a field of energy:

Table 5: SWOT analysis of implementation of financial mechanisms for energy projects

Strengths	Weaknesses
<ul style="list-style-type: none"> Established structures for ERDF funding Qualified project managers who get regular training on process steps Evaluation of the programmes Good examples of financial instruments in several countries 	<ul style="list-style-type: none"> Insufficient training of programme designers Limited training on programme monitoring and evaluation, and development and implementation of financial instruments Evaluation sometimes too formal, not-standardized Less examples of more advanced financial instrument Low budget allocation for financial instruments in some countries
Opportunities	Threats
<ul style="list-style-type: none"> Intention of the EU to provide ERDF increasingly through financial instruments New financing period 2021-2027 Learning from more developed regions 	<ul style="list-style-type: none"> Too complicated conditions / requirements of financial mechanisms Potential competition between grants and financial instruments Low interest rates of commercial loans



Annexes

Annex I Financial mechanisms in partner countries / regions

The Annex I provides a detailed overview of support programmes with involvement of public financial sources that are currently available in the project partner countries / regions to support private investment into energy efficiency and/or renewable energy sources projects.

Annex II EU level financial instruments

The Annex II provides an overview of financial instruments for energy efficiency and renewable energy available at EU-level. These instruments provide financing that is operated by national Managing Authorities or by financial intermediaries.



Annex I

Financial mechanisms in partner countries / regions

The Annex I provides a detailed overview of support programmes with involvement of public financial sources that are currently available in the project partner countries / regions to support private investment into energy efficiency and/or renewable energy sources projects.

Italy - Veneto

National level

n/a

Regional level

Title of the scheme	Revolving fund for investments aimed at limiting energy consumption
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Innovative instrument: grants, loans, tax-credits (money deducted from total bills and their role is to incentive an enterprise to install newer machineries or implementing new procedures, etc.).
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	A. Public Quote: € 32,800,000,00 total <ul style="list-style-type: none"> • € 12.127.731,09 allocated for capital grants • € 20.672.268,91 allocated for subsidized loans B. Private Quote: <ul style="list-style-type: none"> • € 20.672.268,91 funding made available from affiliated banks
Funding institution (= Financial scheme operator)	<ul style="list-style-type: none"> • Veneto Region • ERDF/DG REGIO
Budget	€ 53.472.268,91



Dates of operation	April 2013 - June 2015
Thematic focus (i.e. eligible measures)	<ul style="list-style-type: none"> • Energy efficiency of existing plants (e.g. installation of high efficiency electric motors, power factor correction of power lines, etc.); • Combined cogeneration of thermal and electrical Energy; • Production of electricity by fuel cells; • Production of energy from renewable sources.
Sector focus / eligible applicants (in particular, how industry is addressed)	Small and Medium Enterprises (see Annex I of EC Reg. 800/2008), with operational headquarters in Veneto (also in associated form).
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	<p>2007-2013 ROP ERDF</p> <p><u>Priority Axis 2</u> dedicated to Energy of the Regional Operational Programme (ROP) 2007-2013 of the European Fund for Regional Development (ERDF).</p> <p><u>Line of action 2.1</u> “Production of energy from renewable sources and energy efficiency”.</p>

Title of the scheme	ROP/ERDF 2014-2020 Axis 4 Action 4.1.1. Promoting eco efficiency and the reduction of primary energy consumption in public, residential and commercial buildings and institutions integrating renewable sources
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Grants
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	<ul style="list-style-type: none"> • EU funds (ERDF) • National Co-funding



Funding institution (= Financial scheme operator)	Regional authority
Budget	€ 12.000.000
Dates of operation	2014-2020
Thematic focus (i.e. eligible measures)	Incentives to develop energy audits or to adopt management system and energy efficiency interventions.
Sector focus / eligible applicants (in particular, how industry is addressed)	SMEs
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	ROP-ERDF 2014-2020 - Axis 4 - Action 4.2.1

Title of the scheme	ROP/ERDF 2014-2020 Axis 4 Action 4.1.2 Incentives addressed to the reduction of energy consumption and greenhouse gas emission of enterprises and productive areas
Type of the scheme (e.g. grants, loans, guarantees, etc.)	<ul style="list-style-type: none"> • Grants; • Vouchers (a sort of personal coupons whose value is fixed and determined on the grounds of the kind of service an enterprise wishes to acquire for the realisation of a project).
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF
Funding institution (= Financial scheme operator)	Veneto Region
Budget	€ 12.000.000



Dates of operation	2014-2020
Thematic focus (i.e. eligible measures)	Installation of renewable energy production structures (high efficiency technologies).
Sector focus / eligible applicants (in particular, how industry is addressed)	SMEs
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	Reference to the Regional Energy Plan in terms of energy savings and energy efficiency actions to achieve the targets. No independent topic foreseen.



Italy - Emilia-Romagna

National level

n/a

Regional level

Title of the scheme	Support of Energy Audits for SMEs
Type of the scheme (e.g. grants, loans, guarantees, etc.)	grant - 100%
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	25% National 75% Regional Energy Plan
Funding institution (= Financial scheme operator)	Emilia-Romagna Regional Government
Budget	2.4 mil EUR
Dates of operation	2017-2018
Thematic focus (i.e. eligible measures)	carrying out energy audit
Sector focus / eligible applicants (in particular, how industry is addressed)	Industry (no specific sector) SMEs (more than 150 SMEs will be funded)
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	Direct link

Title of the scheme	Multiscope Regional Fund: • Section Starter Fund • Section Energy Fund
Type of the scheme (e.g. grants, loans, guarantees, etc.)	soft loans - revolving fund



Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF/ROP - starting finance regional budget
Funding institution (= Financial scheme operator)	private entity selected via public procurement
Budget	Initial public budget: € 47 mil. Divided into two sub-funds: <ul style="list-style-type: none">• Starter Fund: € 11 mil.• Energy Fund: € 36 mil.
Dates of operation	2017-2020
Thematic focus (i.e. eligible measures)	Energy Fund Innovative Financial Tool to finance Interventions: <ul style="list-style-type: none">• to improve energy efficiency and reduce climate-changing gases• to produce energy from renewable sources, favouring those in self-consumption, as well as high efficiency cogeneration plants, complying with the EU Directive 2012/27 (EU Parliament and Council)
Sector focus / eligible applicants (in particular, how industry is addressed)	SMEs and large companies
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	Direct link with Energy Plan



Title of the scheme	POR FESR 2014-2020, Axis 3, Actions 3.1.1 - Subsidy for SMEs³ Contribution for investment of manufacturing activity
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Subsidy (20% of the eligible expenses regarding investments made through the use of medium / long-term loans made by the credit system and in synergy with the direct guarantee interventions by the regional system of guarantee (Confidi) with counter-guarantee by Cassa Depositi e Prestiti - Fondo EuReCa
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF/ROP -regional budget
Funding institution (= Financial scheme operator)	Region Confidi Cassa Depositi e Prestiti - EuReCa fund
Budget	POR FESR € 22.467.142,00
Dates of operation	2017-2020
Thematic focus (i.e. eligible measures)	Eligible projects: investments with a high technological content that, through an overall modernization of the plants, machinery and equipment, are suitable to promote process, product or service innovation and have positive impacts on one or more of the following aspects: <ul style="list-style-type: none"> - improve production flexibility; - introduction of enabling technologies in production processes - reduction of the environmental

³ <http://imprese.regione.emilia-romagna.it/Finanziamenti/industria-artigianato-cooperazione-servizi/sostegno-degli-investimenti-produttivi>



	impacts of production processes (Energy efficiency as well)
Sector focus / eligible applicants (in particular, how industry is addressed)	SMEs
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	ERDF Operation Programme



Germany - Saxony (Leipzig)

National level

Title of the scheme	Sofortprogramm Saubere Luft 2017-2020⁴ (immediate action programme for clean air)
Type of the scheme (e.g. grants, loans, guarantees, etc.)	grants
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	national level and industry
Funding institution (= Financial scheme operator)	Federal Ministry for Economic Affairs and Energy (BMWi) and the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB).
Budget	With the “Sofortprogramm Saubere Luft” programme announced at the second municipal summit on 28 November 2017, the federal government has issued a package of measures for better air in cities. One billion euros have now been allocated for the immediate action programme.
Dates of operation	Available since end of 2017
Thematic focus (i.e. eligible measures)	The programme's subject involves the electrification of urban transport, the establishment of recharging infrastructure, the digitisation of transport systems as well as the retrofitting of exhaust after-treatment systems in diesel buses deployed in local public transport operations.

⁴ <https://www.now-gmbh.de/en/news/press/bmvi-supports-municipalities-in-switch-to-alternative-drives-via-an-immediate-action-programme-for-clean-air>



Sector focus / eligible applicants (in particular, how industry is addressed)	The immediate programme is addressed to municipalities having problems with air pollution
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	All measures are to be in effect by 2020. As far as is possible, the immediate action programme is to be implemented on the foundation of the existing funding guidelines. The budgets of existing funding programmes will be increased accordingly.

Regional level

Title of the scheme	Operational Programme ERDF Saxony 2014-2020⁵ <ul style="list-style-type: none"> - T04 Low-carbon economy - T06 Environment and resource efficiency
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Grants, loans
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF
Funding institution (= Financial scheme operator)	Saxon State Ministry of Economic Affairs, Labour and Transport
Budget	Total OP budget: 2,611,275,081.00 € Total EU contribution: 2,089,020,063.00 €
Dates of operation	2014-2020

⁵ http://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/europe/2014de16rfop012



<p>Thematic focus (i.e. eligible measures)</p>	<p>EE and RES measures</p> <p>The Programme will focus on five main priorities:</p> <ul style="list-style-type: none"> • Strengthening research, technological development and innovation • Enhancing the competitiveness of SMEs • Supporting the reduction of CO2 emissions • Risk prevention • Sustainable urban development
<p>Sector focus / eligible applicants (in particular, how industry is addressed)</p>	<p>Esp. the focus is set on SMEs because they play an important role for Saxony's economy.</p> <p>Most funds are foreseen for strengthening research and development in the Saxon economy and for improving applied research in Saxony, in line with the regional innovation strategy. As a result, the yet insufficient R&D expenditure of the SME-dominated economy is expected to increase and the well-developed public research infrastructure can be better used for a knowledge-based economic growth.</p>
<p>What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?</p>	



Local level

Title of the scheme	SME Support Programme “Mittelstandförderprogramm” der Stadt Leipzig⁶
Type of the scheme (e.g. grants, loans, guarantees, etc.)	- grants The financial support is granted as one-time non-repayable grants to the eligible expenditure and usually amount to a maximum of 50% of the eligible costs.
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	100% Budget of the City of Leipzig
Funding institution (= Financial scheme operator)	City of Leipzig - Economic Development Department
Budget	600.000€ annually budget
Dates of operation	since 2013
Thematic focus (i.e. eligible measures)	innovation and technology based projects boosting competitiveness Partly aimed at existing companies, the City of Leipzig's SME Support Programme is also intended to provide stimulus for business start-ups and expansions. Funding is provided for promising projects in those enterprises lacking sufficient financial resources for their implementation. The SME Support Programme was launched in 2013 to enable SMEs to make better use of their own potential, above all by means of innovation and technology based project funding - and hence boost their

⁶ <https://www.leipzig.de/wirtschaft-und-wissenschaft/unternehmensservice/foerderung-und-finanzierung/mittelstandsfoerderprogramm/>



	<p>competitiveness</p> <p>A broad range of measures are defined:</p> <ol style="list-style-type: none"> 1) Branch support <ul style="list-style-type: none"> - Support for companies opening branches in Leipzig 2. Support for existing companies <ul style="list-style-type: none"> - Transfer of creative ideas - Growth-related site development - Management support - Innovations in SMEs - Development of new markets (trade show support) - Testing electric vehicles in everyday operations - Implementation of a quality management system - Crisis management 3. Start-up support <ul style="list-style-type: none"> - Start-up bonus for master craftspeople - Innovative founders
Sector focus / eligible applicants (in particular, how industry is addressed)	<p>SMEs, business start-ups</p> <ul style="list-style-type: none"> - no specific sector focus
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	<p>The support scheme “Testing electric vehicles in everyday operations” is directly based on the policy “Leipzig - city of Intelligent Mobility”. At the end of 2017 the financial support was further developed so that now also e-bike testing (incl. e-cargo bikes) can be supported</p>



Austria - Burgenland

National level

Title of the scheme	Funding programme of KPC (Kommunal Public Consulting)
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Grants and loans, depending at the case of investments
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	National Budget, sometimes also EU Funding sources.
Funding institution (= Financial scheme operator)	KPC (Kommunal Public Consulting)
Budget	Is not known in detail. Approx. 50 Mio. EURO.
Dates of operation	All times
Thematic focus (i.e. eligible measures)	Many kinds of energy efficiency measures as well as energy production measures, environmental measures, mobility measures
Sector focus / eligible applicants (in particular, how industry is addressed)	a lot of measures for SMEs, industry are available. The funding programme is advertised all over Austria.
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	The funding programme has a long year's tradition, but is yearly adjusted to the actual energy plan of Austria.



Regional level

Title of the scheme	EUB (Energie- und Umweltberatung Burgenland) Programme
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Grants for consultancy
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	Regional Budget of Burgenland
Funding institution (= Financial scheme operator)	Forschung Burgenland GmbH (EUB - Energie und Umweltförderung Burgenland)
Budget	100.000
Dates of operation	At yearly basis
Thematic focus (i.e. eligible measures)	Consultancy for energy and environmental
Sector focus / eligible applicants (in particular, how industry is addressed)	Target groups are SME. Industry and institutions. The programme and the funding possibilities are published in the internet and advertised in the media of the chamber of commerce.
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	The EUB programme is linked to the energy consulting measures of the Energy strategy for Burgenland.

Title of the scheme	Operational Programme Burgenland 2014 - 2020
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Grants and loans
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	Regional budget, national budget, European budget



Funding institution (= Financial scheme operator)	WIBU Wirtschaft Burgenland GmbH.
Budget	About 70 mio. EURO from the EU
Dates of operation	2014-2020
Thematic focus (i.e. eligible measures)	All kind of economic investments, about 5 Mio. EURO for energy and environmental related measures.
Sector focus / eligible applicants (in particular, how industry is addressed)	SME and Industry situated in Burgenland. Regularly information in Burgenland.
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	For the energy related measures the link is the Energy strategy for Burgenland.



Poland - Lower Silesia

National level

Title of the scheme	Operational Programme Infrastructure and Environment 2014-2020 Priority axis I Reduction of the carbon intensity (emission capacity) of the economy: Activity 1.2: ⁷ Promoting energy efficiency and the use of renewable energy sources in companies
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Activity 1.2: Grants.
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	Activity 1.2: Cohesion Fund, state budget
Funding institution (= Financial scheme operator)	Activity 1.2: Managing authority: Ministry of Investment and Development Intermediate body: Ministry of Energy Implementing body: National Fund for Environmental Protection and Water Management
Budget	The budget concerns Priority 1 ⁸ = 2 151 095 269 euro, in which: EU contribution: 1 828 430 978 euro national contribution: 322 664 291 euro (no information on budget for action 1.2)
Dates of operation	2014-2020

⁷ http://www.pois.gov.pl/media/55204/SzOOP_POIS_6.pdf, pages 23-30

⁸ https://www.pois.gov.pl/media/54287/POiS_2014_2020_v_6.pdf, page 130



<p>Thematic focus (i.e. eligible measures)</p>	<p>Activity 1.2</p> <p>The activity supports projects resulting from the company's energy audit, in accordance with the Minister of Energy's announcement of 23 November 2016 on the detailed list of projects aimed at improving energy efficiency, as well as technological changes in the existing facilities, installations and technical equipment, including, among others</p> <ol style="list-style-type: none"> 1. conversion of production lines into more energy-efficient ones; 2. deep, comprehensive energy modernisation of buildings in enterprises; 3. application of energy efficient technologies in enterprises, through conversion or replacement with energy efficient technological equipment and installations, lighting, and transport lines of production lines; 4. construction or reconstruction of local heat sources (including replacement of the source with a renewable energy installation); 5. application of the technology from the energy gain together with the system of using the energy of waste heat within the enterprise. <p>An integral part of the project should be the introduction of intelligent energy management systems in the company (unless the beneficiary already has such a system for managing a given component of the company's energy management and if it is economically justified).</p>
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<p>Sector focus / eligible applicants (in particular, how industry is addressed)</p>	<p>Entrepreneurs (large companies) and/or energy service providers Infrastructure projects of national or international importance shall be financed.</p>
<p>What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?</p>	<p>At the national level there are no energy plans, only strategies and other national strategic documents related to, among others, energy efficiency.</p> <ul style="list-style-type: none"> – “Energy policy of Poland until 2030”. – “Energy Security Strategy and the Environment - A Roadmap to 2020”. <p>Nevertheless, the objectives indicated in the Programme are consistent with the assumptions of Polish documents at the national and EU level.</p> <p>The Operational Programme Infrastructure and Environment 2014-2020 (OPI&E) provides a framework for intervention to carry out the following activities in the objective of sustainable development. According to this document, activities resulting from Programme will aim at building foundations for a low-carbon economy, promoting adaptation to climate change, protecting the natural environment and supporting resource efficiency, and promoting sustainable transport, and removing bottlenecks in capacity in the operation of key network infrastructures.</p> <p>There is no connection between the Programme and strategic documents at the level of the Lower Silesian region.</p>



Regional level

Title of the scheme	<p>Regional Operational Programme of Lower Silesia 2014-2020</p> <p>Priority 3 - Low carbon economy → Activity 3.2. Energy efficiency in SMEs</p> <p>Type of beneficiary:</p> <ul style="list-style-type: none"> - micro, small and medium-sized enterprises (SMEs). - agricultural producer groups; - enterprises whose majority of shares belong to territorial self-government units.
Type of the scheme (e.g. grants, loans, guarantees, etc.)	<p><u>Grants:</u></p> <p>Activity: 3.2.A.</p> <p>Activity: 3.2.B.</p> <p>Activity: 3.2.C.</p> <p><u>Loans:</u></p> <p>Activity: 3.2.D.</p>
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	<p><u>Grants:</u></p> <ul style="list-style-type: none"> - European Regional Development Fund, - State budget <p><u>Loans:</u></p> <ul style="list-style-type: none"> - European Regional Development Fund, - national measures, - own contribution of Financial Intermediaries implementing loan measures
Funding institution (= Financial scheme operator)	<p><u>Grants:</u></p> <ol style="list-style-type: none"> 1. The Marshal's Office of the Lower Silesian Voivodship - a local self-government body responsible for managing ERDF funds under the Regional Operational Programme for the years 2014-2020 of the Lower Silesian



	<p>Voivodship /Department of European Funds of the Lower Silesian Voivodship Marshal's Office.</p> <p>2. The Lower Silesian Intermediate Body (DIP), as a budgetary unit of the Lower Silesian Voivodship within the Regional Operational Programme of the Lower Silesian Voivodship for 2014-2020, included the implementation of the following areas in the area of low-carbon economy:</p> <p>Priority 3 - A low carbon economy.</p> <p><u>Loans:</u></p> <ul style="list-style-type: none"> – National Economy Bank. <p>On 30 November 2016 National Economy Bank signed an agreement with the Lower Silesian Voivodship, represented by the Lower Silesian Intermediary Institution, regarding fund management and implementation of financial instruments under the Regional Operational Programme of the Lower Silesian Voivodship 2014-2020, implementation of the project "Development of entrepreneurship and support for low-carbon economy through financial instruments in the Lower Silesian Voivodship".</p> <p>Support will be devoted to the implementation of financial instruments under:</p> <ul style="list-style-type: none"> – Priority Axis 1 "Enterprises and innovations" - value of PLN 431,09 million zl, – Priority axis 3 "Low-carbon economy" - value of PLN 269,31 million zl (ERDF+ national centres + centres of Financial Intermediaries), – Priority Axis 8 "Labour Market" - PLN
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	<p>55,73 million zl.</p> <p>Financial instruments are implemented by Financial Intermediaries selected within the framework of tenders conducted by National Economy Bank.</p>
Budget	<p>Total grants and loans for Activity 3.2 Energy efficiency in SMEs:</p> <p>ERDF: 32 405 520 euro</p> <p>National measures: 5 718 621 euro</p>
Dates of operation	2014-2020
Thematic focus (i.e. eligible measures)	<p>Activity: 3.2.A. Deep energy modernisation of facilities⁹, including replacement or modernization of the energy source, aimed at increasing energy efficiency by reducing heat losses and reducing electricity consumption with possible consideration of RES (excluding sources in the system of high-efficiency cogeneration and trigeneration).</p> <p>Activity: 3.2.B. Support for installations recovering waste heat as defined in Directive 2012/27/EU.</p> <p>Activity: 3.2.C. Application of energy efficient technologies in the company (including modernisation and extension of production lines to more energy efficient ones).</p> <p><u>Loans:</u></p> <p>Activity: 3.2.D. Support through financial instruments. The scope of support under the scheme is the same as that specified for schemes 3.2.A-C, together with the conditions applicable to them indicated in those schemes.</p>

⁹ Obiekt - art. 3 pkt. 1 ustawy z dnia 7 lipca 1994 r. Prawo budowlane (Dz.U. z2017 r. poz. 1332)



<p>Sector focus / eligible applicants (in particular, how industry is addressed)</p>	<ul style="list-style-type: none"> – SMEs; – agricultural producer groups; – entity implementing the financial instruments - for scheme 3.2.D; – enterprises whose majority of shares belong to territorial self-government units.
<p>What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?</p>	<p>Regional Operational Programme of Lower Silesia 2014-2020 was developed independently, but it contains a reference to strategic documents at both the national and regional levels.</p> <p>In the case of the Lower Silesian region:</p> <p><u>1. Development Strategy of the Lower Silesian Voivodship 2020</u></p> <p>Priority 3 Low-carbon economy is linked to the implementation of two specific objectives:</p> <p>No. 3 Improvement of the competitiveness of enterprises, especially SMEs;</p> <p>No 4: Environmental protection, resource efficiency and climate change adaptation and improvement of safety.</p> <p>This priority will also contribute to the implementation of measures in the following macrospheres:</p> <ul style="list-style-type: none"> – Infrastructure - implementation of measures assuming improvement of transport accessibility and internal connections of the region as well as implementation of energy investments of key importance for the voivodship, – Resources - implementation of measures aimed at improving the efficiency of use of the natural and cultural resources of the region.



2. Regional Innovation Strategy of the Lower Silesian Voivodship for the years 2011-2020¹⁰

Priority 3 Low-carbon economy indirectly related to the implementation of strategic objectives of the document:

1. Strengthening innovative skills and attitudes, key for the knowledge-based economy.
2. Increase the chances of success of innovative business projects.
3. Increase of innovation potential of Lower Silesian scientific entities.
4. Development of cooperation in the field of innovation in the economy.

¹⁰ The English version of the Regional Innovation Strategy can be found here:
http://www.innowacje.dolnyslask.pl/images/attachments/aktualizacja_rsi/rsi_wd_ang.pdf



Poland - Lubelskie

National level

The Operational Programme Infrastructure and Environment 2014-2020

see Annex V Poland - Lower Silesia

Regional level

Title of the scheme	Regional Operational Programme of Lubelskie Voivodeship 2014-2020
	<ul style="list-style-type: none"> - Priority Axis 4 - Environmentally-friendly energy (Measure 4.2. Production of energy from RES in enterprises) - Priority Axis 5 - Energy Efficiency and Low Emissivity (Measure 5.1. Improving the energy efficiency of enterprises)
Type of the scheme (e.g. grants, loans, guarantees, etc.)	subsidies
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF
Funding institution (= Financial scheme operator)	<p>Marshal's Office (Department of Regional Operational Programme Management)</p> <p>Managing Authority: Management Board of Lubelskie Voivodship</p> <p>Intermediate Body: Lubelska Agency for Entrepreneurship Support</p>
Budget	<p>Measure 4.2: 39 271 882 EUR</p> <p>Measure 5.1: 45 787 659 EUR</p>
Dates of operation	2014-2020
Thematic focus (i.e. eligible measures)	<p>generation and distribution of renewable energy (PA 4)</p> <ul style="list-style-type: none"> - (re)construction of the infrastructure



	<p>used for the production of RES energy</p> <ul style="list-style-type: none"> - investments in the construction and modernization of heat production units - distributed cogeneration <p>energy efficiency and the use of renewable energy in enterprises (PA 5)</p> <ul style="list-style-type: none"> - deep thermal modernization of enterprises - reduction of energy, heat and water losses - (re)construction of RES installations
Sector focus / eligible applicants (in particular, how industry is addressed)	<p>In cases of measures 4.2 and 5.1, support is provided only for enterprises.</p> <p>Measure 4.2: The subject of the project is significant, i.e. production of energy from RES.</p> <p>Measure 5.1: Support cannot be granted to the extent that it is excluded in art. 1 of Regulation 651/2014, art. 3 par. 3 of Regulation 1301/2013 and art. 1 point 1 of the Commission Regulation (EU) No. 1407/2013.</p>
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	<p>Realization of the assumptions of the climate-energy package for 2020 and the Strategic Plan for Adaptation sectors and areas vulnerable to climate change by 2020, with the prospect of 2030 (SPA 2020).</p> <p>The Energy Development Programme for Lubelskie Voivodship contains development scenarios for the programming period of EU cohesion policy 2014-2020, and the recommendations were used in development of the Regional Operational Programme of Lubelskie Voivodship 2014-2020.</p>



Hungary - Dél-Dunántúl

National level

Title of the scheme	Economy Development and Innovation Operational Programme <ul style="list-style-type: none"> - Priority 4: Transition to low-emission economy in all economic areas - Priority 8 measures in support of: Energetic refurbishment of existing building stock, improvement of district heating solutions, increasing the share of renewable energy in the consumption of households
Type of the scheme (e.g. grants, loans, guarantees, etc.)	grants, combined [non-refundable support+ financial instrument (loan)]
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF
Funding institution (= Financial scheme operator)	Ministry for National Economy
Budget	Priority 4 (overall budget, EU grant + national contribution): 454.794.075, EUR Priority 8 (overall budget, EU grant + national contribution): 2.352.885.425, EUR Budget for energy efficiency: 568.000.000 EUR
Dates of operation	2014-2020
Thematic focus (i.e. eligible measures)	energy efficiency and RES in companies energy efficiency of buildings energy efficiency of district heating RES for households



Sector focus / eligible applicants (in particular, how industry is addressed)	Priority 4 targets SMEs (energy efficiency and low carbon developments)
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	The financial scheme is mentioned in the South Transdanubian Regional Energy Strategy as potential source of finance.

Title of the scheme	Territorial and Settlement Development Operational Programme <ul style="list-style-type: none"> - Priority 3: Transition to low-emission economy, especially in rural areas → Measure 2: Increasing the energy efficiency of local municipalities, increasing the share of renewable energy in the consumption
Type of the scheme (e.g. grants, loans, guarantees, etc.)	grants
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF
Funding institution (= Financial scheme operator)	Ministry for National Economy
Budget	Priority 3 (overall budget, EU grant only): 550.912.221, EUR
Dates of operation	2014-2020
Thematic focus (i.e. eligible measures)	energy efficiency and RES
Sector focus / eligible applicants (in particular, how industry is addressed)	No direct support to industry It targets local municipalities so as to create a business friendly public environment (industrial parks, incubation facilities, etc.) favouring companies



	intending to go (among others) low-carbon.
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	The financial scheme is mentioned in the South Transdanubian Regional Energy Strategy as potential source of finance.

Title of the scheme	Environment and Energy Efficiency and Operational Programme - Priority 5: Increase of energy efficiency, use of renewable energy
Type of the scheme (e.g. grants, loans, guarantees, etc.)	grants
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF
Funding institution (= Financial scheme operator)	Ministry of National Development
Budget	Priority 5 (overall budget, EU grant + national contribution): 994.820.180, EUR
Dates of operation	2014-2020
Thematic focus (i.e. eligible measures)	energy efficiency and RES
Sector focus / eligible applicants (in particular, how industry is addressed)	energy efficiency and low carbon developments in large enterprises
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	The financial scheme is mentioned in the South Transdanubian Regional Energy Strategy as potential source of finance.

Regional level

n/a



Czech Republic - Praha

National level

Title of the scheme	Operational Programme Enterprise and Innovation for Competitiveness
Type of the scheme (e.g. grants, loans, guarantees, etc.)	grants
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF
Funding institution (= Financial scheme operator)	Ministry of Industry and Trade
Budget	4 331 mil. EUR - total budget 1 221 mil EUR - PA 3
Dates of operation	2014 - 2020
Thematic focus (i.e. eligible measures)	Priority axis no. 3: "Effective energy management, development of the energy infrastructure and renewable energy sources, support for introduction of new technologies in the area of using energy and secondary raw materials"
Sector focus / eligible applicants (in particular, how industry is addressed)	all business companies both SMEs and large enterprises
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	use of OPEIC is foreseen in the Energy Plan



Title of the scheme	Programme EFEKT
Type of the scheme (e.g. grants, loans, guarantees, etc.)	grants
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	state budget
Funding institution (= Financial scheme operator)	Ministry of Industry and Trade
Budget	750 mil CZK (approx. 30 mil EUR)
Dates of operation	2017 - 2021
Thematic focus (i.e. eligible measures)	small-scale EE and RES projects, and „soft“ projects (e.g. implementation of energy management, energy audits and analyses)
Sector focus / eligible applicants (in particular, how industry is addressed)	public and private sector
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	use of the programme is foreseen in the Energy Plan as a supportive measure

Title of the scheme	Programme Energy Savings
Type of the scheme (e.g. grants, loans, guarantees, etc.)	soft loans
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	state budget
Funding institution (= Financial scheme operator)	Czech-Moravian Guarantee and Development Bank
Budget	1 900 mil CZK (approx. 75 mil. EUR)



Dates of operation	2017 - 2020
Thematic focus (i.e. eligible measures)	energy saving investment
Sector focus / eligible applicants (in particular, how industry is addressed)	companies of any size, not located in Prague
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	

Title of the scheme	ESCO model
Type of the scheme (e.g. grants, loans, guarantees, etc.)	energy performance contracting
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	private
Funding institution (= Financial scheme operator)	ESCO companies
Budget	
Dates of operation	
Thematic focus (i.e. eligible measures)	energy efficiency
Sector focus / eligible applicants (in particular, how industry is addressed)	public and private sector (independent of industry branch)
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	



Regional level

Title of the scheme	Programme ENERG
Type of the scheme (e.g. grants, loans, guarantees, etc.)	soft loans a small grant component included (7% from a loan)
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	state budget
Funding institution (= Financial scheme operator)	Czech-Moravian Guarantee and Development Bank
Budget	130 mil CZK (approx. 5 mil EUR)
Dates of operation	2017 - 2018
Thematic focus (i.e. eligible measures)	energy efficiency or renewable energy projects
Sector focus / eligible applicants (in particular, how industry is addressed)	SMEs from Prague
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	



Croatia - Jadranska Hrvatska

National level

Title of the scheme	<p>Operational Programme Competitiveness and Cohesion 2014 - 2020¹¹</p> <ul style="list-style-type: none"> - Priority 4 ERDF funding: 531,810,805.00 EUR - Priority 4b - Promoting energy efficiency and renewable energy use in enterprises - Priority 4c - Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure - Priority 4d - Developing and implementing smart distribution systems - Priority 6 ERDF funding: 338,020,392.00 EUR, CF funding: 1,649,340,216.00 EUR - Priority 6c - Conserving, protecting, promoting and developing natural and cultural heritage - Priority 6i - Investing in the waste sector to meet the requirements of the Union's environmental acquis - Priority 7 ERDF funding: 531,810,805.00 EUR, CF funding: 910,205,755.00 EUR - Priority 7ii - Developing and improving environmentally-friendly and low-carbon transport systems - Notes: - ERDF - European Regional Development Fund - CF - Cohesion Fund
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¹¹ http://www.esf.hr/wordpress/wp-content/uploads/2015/02/Programme_2014HR16M1OP001_1_2_en.pdf



Type of the scheme (e.g. grants, loans, guarantees, etc.)	Grants with compulsory financial participation by the investor, e.g. the fund operator can organize a call of proposal for energy renewal of the public buildings and the successful applicant can receive 80% of ERDF funding but he needs to ensure the other 20% (the percentage of co-financing can be defined on an individual basis). The percentage of compulsory financial participation depends on several factors which are here not defined.
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF ESI, CF
Funding institution (= Financial scheme operator)	<p>4b - Ministry of Economy, Entrepreneurship and Crafts; The Environmental Protection and Energy Efficiency Fund</p> <p>4c - Ministry of Construction and Physical Planning; The Environmental Protection and Energy Efficiency Fund</p> <p>4d - Ministry of Economy, Entrepreneurship and Crafts</p> <p>6c - Ministry of Regional Development and European Union Funds ; SAFU</p> <p>6i - Ministry of Environment and Energy; The Environmental Protection and Energy Efficiency Fund</p> <p>7ii - Ministry of Maritime Affairs, Transport and Infrastructure</p>
Budget	10,676 billion EUR
Dates of operation	2014-2020



Thematic focus (i.e. eligible measures)	<p>energy efficiency and renewable energy use in enterprises</p> <p>energy efficiency, smart energy management and renewable energy use in public infrastructure (including public buildings and housing sector)</p> <p>smart distribution systems</p> <p>environmentally-friendly and low-carbon transport systems</p>
Sector focus / eligible applicants (in particular, how industry is addressed)	<p>4 - Supporting the shift towards a low-carbon economy in all sectors (Total ERDF funding: 625,659,781.00 EUR)</p> <p>4b - Promoting energy efficiency and renewable energy use in enterprises</p> <p>4b1 - Increasing energy efficiency and use of RES in manufacturing industries</p> <p>4b2 - Increasing energy efficiency and use of RES in private service sector (tourism and trade)</p> <p>4c - Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector</p> <p>4c1 - Reduction of energy consumption of the public sector buildings</p> <p>4c2 - Reduction of energy consumption of the residential buildings (multi apartment buildings and family houses)</p> <p>4c3 - Improvement of the efficiency of the district heating system</p> <p>4c4 - Improvement of the efficiency of the public lighting system</p> <p>4d - Developing and implementing smart distribution systems that operate at low and</p>



	<p>medium voltage levels</p> <p>4d1 - Pilot Introducing smart grids</p> <p>6 Environmental Protection and Sustainability of Resources (Total ERDF funding: 338,020,392.00 EUR, CF funding: 1,649,340,216.00 EUR)</p> <p>6c1 - Increasing employment and tourist expenditure through enhancing cultural heritage</p> <p>6c2 - Increasing attractiveness, educational capacity and sustainable management of natural heritage sites</p> <p>6i - Investing in the waste sector to meet the requirements of the Union's environmental acquis and to address needs, identified by the Member States, for investment that goes beyond those requirements</p> <p>6i1 - Decreased amount of waste being landfilled</p> <p>7 Connectivity and Mobility (Total ERDF funding: 1,070,830,307.00 EUR, CF funding: 910,205,755.00 EUR)</p> <p>7ii - Developing and improving environmentally-friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility</p>
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	The Operational Programme Competitiveness and Cohesion 2014 - 2020 (version 1.2) refers to the National Action Plans objectives and explains how the ERDF and CF funding set in this document via the



	priority axis will contribute to achievement of this objectives.
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Title of the scheme	Support from the Environmental Protection and Energy Efficiency Fund
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Grants Interest-free loans Subsidies Financial aids Donations
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	ERDF (EU funding). The Fund receives revenues from different fees, e.g. fee for SO ₂ , NO ₂ , CO ₂ emissions etc. These revenues are then used for financing the projects defined by priority axis 4, 5 and 6. The Fund is also responsible for trading greenhouse gas emissions. The income is then invested in implementation of mitigation measures and adaptations to climate change.
Funding institution (= Financial scheme operator)	Environmental Protection and Energy Efficiency Fund
Budget	ERDF and CF funds (2014-2020): Priority axis 4 (531.810.805 EUR) Priority axis 5 (30.396.147 EUR) Priority axis 6 (620.000.000 EUR) Budget for 2015: From fees: 177 million EUR
Dates of operation	2014-2020



Thematic focus (i.e. eligible measures)	<p>energy efficiency and renewable energy use in enterprises</p> <p>energy efficiency, smart energy management and renewable energy use in public infrastructure (including public buildings and housing sector)</p> <p>smart distribution systems</p> <p>environmentally-friendly and low-carbon transport systems, climate change and risk management, energy audits etc.</p>
Sector focus / eligible applicants (in particular, how industry is addressed)	<p>4 - Supporting the shift towards a low-carbon economy in all sectors (Total ERDF funding: 625,659,781.00 EUR)</p> <p>4b - Promoting energy efficiency and renewable energy use in enterprises</p> <p>4b1 - Increasing energy efficiency and use of RES in manufacturing industries</p> <p>4b2 - Increasing energy efficiency and use of RES in private service sector (tourism and trade)</p> <p>4c - Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector</p> <p>4c1 - Reduction of energy consumption of the public sector buildings</p> <p>4c2 - Reduction of energy consumption of the residential buildings (multi apartment buildings and family houses)</p> <p>4c3 - Improvement of the efficiency of the district heating system</p> <p>4c4 - Improvement of the efficiency of the public lighting system</p> <p>4d - Developing and implementing smart</p>



	<p>distribution systems that operate at low and medium voltage levels</p> <p>4d1 - Pilot Introducing smart grids</p> <p>6 Environmental Protection and Sustainability of Resources (Total ERDF funding: 338,020,392.00 EUR, CF funding: 1,649,340,216.00 EUR)</p> <p>6c1 - Increasing employment and tourist expenditure through enhancing cultural heritage</p> <p>6c2 - Increasing attractiveness, educational capacity and sustainable management of natural heritage sites</p> <p>6i - Investing in the waste sector to meet the requirements of the Union's environmental acquis and to address needs, identified by the Member States, for investment that goes beyond those requirements</p> <p>6i1 - Decreased amount of waste being landfilled</p>
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	<p>The activities of the Fund are considered a horizontal measure (measure H.3 - financial support for energy efficiency, renewable energy sources and clean traffic). Therefore, all Fund activities are considered part of the National Action Plan implementation and energy savings as a result of projects co-financed by the Fund.</p> <p>The Fund operates the EU funds allocated for priority axis 4, 5 and 6.</p>



Title of the scheme	Support from the Croatian Bank for Reconstruction and Development
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Grant Loans Export credit insurance ESIF Credits for Energy Efficiency (25 million EUR) ESIF Credit for Growth and Development Insurances (200 million EUR) Export banking guarantees Financing using risk sharing methods Leasing for SMEs HBOR is in the period 2014-2020. Assumed the role of EU project creditors to be co-funded by ESI funds. Documentary creditors FGS open investment funds with risky capital with private offer
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	EU funds CBRD budget
Funding institution (= Financial scheme operator)	Croatian Bank for Reconstruction and Development
Budget	25 million EUR - ESIF Credits for Energy Efficiency 200 million EUR - ESIF Credit for Growth and Development Insurances The CBRD in 2017 approved 2,093 loans for SMEs for all programs, or 96 percent of the total number of approved credits in the



	amount of 309 million EUR. This is to give an indication on the possible yearly budget. The exact data are not known.
Dates of operation	2014-2020 for EU funding Continuous for other ways of funding
Thematic focus (i.e. eligible measures)	environmental protection, energy efficiency, renewable energy sources
Sector focus / eligible applicants (in particular, how industry is addressed)	Mainly private/industry sector. Aids for new companies, etc. There is a range of financial products dedicated to all sorts of activities for SMEs. Although, the ESIF loans for Energy Efficiency are dedicated only for the public buildings, there are a variety of other options for SMEs, e.g. loans with subsidised interest for investment in founding investment, land, buildings and equipment and devices.
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	ESIF Credits for Energy Efficiency and ESIF Credit for Growth and Development are a result of PA 4, 4c1- Reduction of energy consumption of the public sector buildings. CBRD had the financing options prior to the development of Energy Plans. However, the objectives set in the National Action Plans are surely considered when new financing options are being developed and when EU fund are being used.



Title of the scheme	WeBSEFF II
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Loans Grants
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	EBRD
Funding institution (= Financial scheme operator)	EBRD through Croatian private banks (Zagrebačka banka , ERSTE , PBZ)
Budget	€ 92 million
Dates of operation	N/A
Thematic focus (i.e. eligible measures)	energy efficiency, renewable energy
Sector focus / eligible applicants (in particular, how industry is addressed)	Industrial energy efficiency and commercial building sector energy efficiency projects, ESCO projects, municipal buildings energy efficiency and small renewable energy projects.
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	The EU/EBRD Western Balkans Sustainable Energy Credit Line Facility II (WeBSEFF II) is an investment facility established by the EBRD to provide debt financing for energy efficiency projects and small renewable energy projects implemented by private companies, Energy Service Companies (ESCOs) and municipal entities in the Western Balkans. It aims to unlock the significant potential in the region to reduce energy intensity and promote diverse sources of green energy which is in line with PA 4- Promoting Energy Efficiency and Renewable Energy Sources and in line with the National Action Plans and Energy Plans regarding the energy efficiency and gas emission reduction.



Title of the scheme	ESCO model
Type of the scheme (e.g. grants, loans, guarantees, etc.)	energy performance contracting
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	private
Funding institution (= Financial scheme operator)	ESCO companies
Budget	
Dates of operation	
Thematic focus (i.e. eligible measures)	energy efficiency
Sector focus / eligible applicants (in particular, how industry is addressed)	public and private sector (independent of industry branch)
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	

Title of the scheme	Croatian Agency for Small Business, Innovation and Investment
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Grants Guarantees ESIF Loans
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	EU funds Budget



Funding institution (= Financial scheme operator)	Croatian Agency for Small Business, Innovation and Investment
Budget	N/A
Dates of operation	N/A
Thematic focus (i.e. eligible measures)	energy efficiency
Sector focus / eligible applicants (in particular, how industry is addressed)	The focus is on developing the industry and SMEs
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed rather independently)?	N/A

Regional level

Title of the scheme	Istria County
Type of the scheme (e.g. grants, loans, guarantees, etc.)	Loans Subsidised interests on the loans
Source of finance (e.g. state/regional budget, EU funding, international financial institution)	County's budget
Funding institution (= Financial scheme operator)	Istria County Istrian Development Agency IDA d.o.o. Private bank partners: <ul style="list-style-type: none">• Erste banka d.d.• Istarska kreditna banka Umag d.d.• PBZ banka d.d.• Raiffeisen banka d.d.
Budget	The total amount of the loan fund for the Program amounts to HRK 60,000,000.00



Dates of operation	2017 - until the resources are depleted. Normally it is renewed.
Thematic focus (i.e. eligible measures)	<p>For new investments that include e.g.:</p> <ul style="list-style-type: none"> - purchase, construction, arrangement or extension of economic facilities, - procurement of equipment or parts of equipment, - procurement of new production facilities, - working capital up to 30% of the loan amount. <p>For permanent working tools for the following purposes e.g.:</p> <ul style="list-style-type: none"> - for the procurement of raw materials, raw materials, semi-finished products, small inventory, - for labour costs, - for overhead costs.
Sector focus / eligible applicants (in particular, how industry is addressed)	<p>active crafts, small and medium-sized companies, cooperatives, profit institutions</p> <p>Loan users cannot be entrepreneurs whose business is:</p> <ul style="list-style-type: none"> - manufacture of weapons, ammunition, military and police equipment; - casinos, betting shops and similar activities; - production, processing and distribution of tobacco; - conducting experiments on animals
What is a link to Energy Plans (i.e. is the scheme foreseen by the Energy Plan, or was it developed	N/A



rather independently)?



Annex II

EU level financial instruments

There are numerous sources of financial instruments for energy efficiency and renewable energy operating at EU-level. They provide financing that is operated by national Managing Authorities or by financial intermediaries.

The financial instruments include:

- Connecting Europe Facility (CEF),
- Private Finance for Energy Efficiency (PF4EE),
- European Fund for Strategic Investments (EFSI),
- Europe Energy Efficiency Fund (EEEF),
- Marguerite Fund,
- Green Initiative,
- European Local Energy Assistance (ELENA).¹²

Most of these “international” financial instruments are set by the European Commission and/or by the European Investment Bank (EIB) that also plays an important role in funding of energy projects (in particular, energy efficiency, renewable energy, energy networks, and related research and innovation).¹³ Funding is provided mainly through the provision of loans (but also through options such as guarantees and mezzanine finance), as well as via investment through fund of funds and investment vehicles.

Connecting Europe Facility

The Connecting Europe Facility (CEF) supports trans-European networks and infrastructure in the transport, telecommunications and energy sectors. One of the key elements of CEF is the use of innovative FIs to provide a funding alternative to traditional grants and fill financing gaps for strategic infrastructure investments.

¹² The text below is based on the study „Research for REGI Committee - Financial instruments for energy efficiency and renewable energy“, European Policies Research Centre, University of Strathclyde, 2017

¹³ In 2016, 26% of total EIB lending was focused on helping mitigate climate change and adapt to its impact.



CEF has a budget of EUR 30.44 billion for the period 2014-20, of which EUR 5.35 billion is earmarked for energy projects.

Support is available to projects which have been identified by the Commission as ‘projects of common interest’ - these may include, for example, projects ‘contributing to sustainable development and protection of the environment, inter alia by the integration of energy from renewable sources into the transmission network, and by the development of smart energy networks and carbon dioxide networks’.

The overall contribution from the EU budget to CEF financial instruments has been set at EUR 2.55 billion over 2014-20. The CEF Debt Instrument was launched in 2015 jointly by the Commission and the EIB, and is implemented by the EIB. The Debt Instrument consists of a risk-sharing instrument for loans and guarantees as well as project Bonds. An Equity Instrument is under development.

Private Finance for Energy Efficiency

The Private Finance for Energy Efficiency (PF4EE) instrument is a joint agreement between the EIB and the Commission which aims to address the limited access to adequate and affordable commercial financing for energy efficiency investments. Funded under the Commission’s Programme for the Environment and Climate Action (LIFE programme), the instrument targets projects which support the implementation of NEEAPs or other Member State energy efficiency programmes.

The PF4EE instrument provides portfolio-based credit risk protection through cash-collateral (Risk Sharing Facility), long-term financing from the EIB (EIB Loan for Energy Efficiency) and support services for financial intermediaries (Expert Support Facility). One PF4EE operation may be implemented per country, and operations have so far been signed in Czech Republic, Spain, France, Belgium, Italy and Portugal.

The LIFE Programme committed EUR 80 million to fund the credit risk protection and expert support services. The EIB will leverage this amount, making a minimum of EUR 480 million available in long term financing.

European Fund for Strategic Investments

European Fund for Strategic Investments (EFSI) forms a part of the Investment Plan for Europe and aims to mobilise additional investments in areas including infrastructure, education, research, innovation, renewable energy and energy efficiency. To establish EFSI, an EU guarantee of EUR 26 billion has been created,



backed by a guarantee fund of EUR 8 billion from the EU budget, while the EIB has committed EUR 7.5 billion.

EFSI is a market-driven instrument, which targets technically and economically viable projects without any sectoral or regional pre-allocation, in particular to address high investment needs or market failures/sub-optimal investment situations. Member States, directly or via their National Promotional Banks, can contribute either through an investment platform or by directly co-financing certain projects and activities.

Operations supported by EFSI can include both funds and projects. Approved Funds relevant to energy efficiency and renewable energy include, for example:

- Odewald Renewable Energy Infrastructure Fund - EUR 80 million under the equity sub-window;
- Susi Renewable Energy Fund II - EUR 66 million under the equity sub-window;
- London Energy Efficiency Co-financing Facility - EUR 136 million under the debt sub-window.

Europe Energy Efficiency Fund

The Europe Energy Efficiency Fund (EEEF) is a public-private partnership with an EU contribution of around EUR 125 million funded from the European Energy Programme for Recovery, which finances key energy projects. The EEEF provides risk finance for energy efficiency, small-scale renewable energy, and clean urban transport projects (at market rates) targeting municipal, local and regional authorities and public and private entities acting on behalf of those authorities.

Marguerite Fund

The 2020 European Fund for Energy, Climate Change and Infrastructure (so called, Marguerite Fund) is an equity fund with current commitments of around EUR 710 million which makes capital-intensive infrastructure investments in the development of transportation, energy, and climate change.

Green Initiative

The Green Initiative offers EIB loans channelled through participating intermediaries (plus associated Commission grants of up to 15 percent and EUR 150 000 of the EIB loan amount) for energy efficiency projects by SMEs covering, for example, energy efficiency in residential and non-residential buildings (both single



measure and multi-measure, major renovation); industry energy efficiency; solar thermal collectors; biomass boilers; geothermal heat generation; combined heat and power; and renovation of district heating systems (pipelines, generation units, substations).

European Local Energy Assistance

European Local Energy Assistance (ELENA) is a joint initiative of the Commission and the EIB with the aim of supporting the EU's climate and energy policy objectives by helping ESIF MAs prepare energy efficiency or renewable energy projects.

ELENA provides grants for technical assistance focused on the implementation of energy efficiency, distributed renewable energy and urban transport projects and programmes. The grant can be used to finance costs related to feasibility and market studies, programme structuring, business plans, energy audits and financial structuring, as well as to the preparation of tendering procedures, contractual arrangements and project implementation units. The annual grant budget is c. EUR 20 million.