
FIRECE CENTRAL EUROPE Project CE1131

WPT1 Increasing competence to manage Regional Energy Plans and elaboration of the FIRECE plan

Benchmarking Report

DELIVERABLE

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Introduction

Benchmarking report

The report collects and analyses past and on-going experiences on Energy Plans related both to the financial instruments focusing on supporting industry low-carbon transition and the quality assessment criteria to assess public funding actions.

1. Innovative Financial Instruments¹

The European Commission in the communication COM(2011) 662 final - A framework for the next generation of innovative financial instruments – defines IFIs as: “The innovative financial instruments dealt with in this Communication include instruments which provide equity/risk capital, or debt instruments (such as loans or guarantees to intermediaries that provide financing to a large number of final recipients who have difficulties in accessing finance, or risk sharing with financial institutions in order to increase the volume of finance and hence the impact resulting from the EU budget intervention)”.

Financial Instruments are also implemented within the operational programs of the ESI Funds to support financially sustainable investments that do not find adequate sources of financing in the market due to sub-optimal conditions for investment.

The general benefits deriving from the adoption of the Financial Instruments, which are not traceable in other forms of support such as grants, can be grouped into the following categories:

- multiplier effect on the ESI Funds: ability of the Financial Instruments to associate different forms of public and private financial resources in support of public policy objectives and ability to guarantee a revolving flow of financial resources for strategic investments, favoring long-term sustainable investments and strengthening the growth potential of the Union;
- possibility of combining Financial Instruments with non-repayable resources: in cases where elements of an investment do not determine financial returns in line with the degree of risk of the project, it could be justified to combine the Financial Instruments with grants (within the limits permitted by the regulations in force in the field of State aid) to allow the economic viability of the projects;
- support for final beneficiaries: possibility to allocate part of the resources allocated to the Instruments Financial to provide non-repayable technical assistance to the final beneficiaries;
- possibility to contribute to the Financial Instrument with additional resources;
- reduction of moral hazards and responsibility of final beneficiaries in the use of public resources, being funds that must be repaid;
- interventions with aid intensity that are smaller than the fund lost and lead to a weakening of the distortionary effect on the markets.

¹ PWC – Ex-Ante Financial Instrument Evaluation, 2015, Emilia-Romagna Region – VexA SP ER – www.pwc.com

	Market failures and conditions of sub-optimal investment identified	Peculiarities and added value of the Financial Instrument
Real market	Difficulty in generating new projects that highlight the self-sustainability of investments due to the lack of funds for energy audits	Technical assistance for energy audit support a Financial Instrument would favor the development of the market and reduce the level of risk of the projects
	Existence of small and large projects simple that they find difficulty of access to financial benefits	Define a simplified funding channel for small projects
Financial Market	Underwriting of the ESCo	Provision of capital in the form of equity / mezzanine for the capitalization of ESCo
	Difficulties of banks to evaluate energy efficiency projects due to the absence of benchmarks and internal specific know-how	Reduction, through Debt Financial Instruments, exposure of financial investors and cost of debt thus containing the overall risk of project
	Difficulty of financial intermediaries to decide loans with durations consistent with the investment capacity to repay loans with the savings generated	The Debt Financial Instrument may be aligned with the ability of the intervention to repay the investments with the savings achieved by providing longer durations than the current maturities / maturities of the loans
Information asymmetries	The great diversity of project characteristics (both from a technological point of view and goals and expected results) makes it difficult to create standard evaluation models. Absence of a standard contract that adequately distributes the risks between the company and ESCo	The Financial Instrument can facilitate the creation of contracts and standard management models
Business culture and financial culture	Low opening of ESCo to the presence of financial investors in the company structure	Facilitate the adoption of innovative financial instruments with reduced interference in the company
	Low awareness of potential energy savings resulting from investments in energy efficiency that are typically not considered "core" for the company	Development of successful cases to be shared and disseminated among industrial operators in the activities of promoting the Financial Instrument.
Misalignments of programming and Governance	Contribution overlap risk non-repayable with other Financial Instruments	Possibility to concentrate resources on two lines of action: grant for projects with too long pay backs or that do not produce adequate cash flows repay financing, Financial Instruments for projects with cash flows that can repay the investments.

Source: PWC – Ex-Ante Financial Instrument Evaluation, 2015, Emilia-Romagna Region

1.2 Examples of Financial Instruments in the project areas²

1.2.1 Financial Instruments under EIB

The European Investment Bank (EIB) provides financing and expertise for projects supporting innovation and skills, SMEs, environment and climate action, and infrastructure. The variety of the EIB's financial instruments are grouped in three main categories:

- Lending Financial Products
- Blending Financial Products
- Advising – European Investment Advisory Hub

Lending Financial Products

- **Project loans** – to finance projects with high investment cost, research and innovation programs, direct loans of between EUR 7.5 and EUR 25m to mid-cap companies (< 3000 employees) and multi-component loans (financing projects for energy efficiency and renewable, infrastructure, transport and urban renovation through national or public-sector institution).
- **Intermediated loans** – to support SMEs, large and mid-cap businesses, national administrations, public sector bodies and local authorities via intermediary entities.
- **Venture capital** – to support innovation and entrepreneurship of high-tech SMEs in their initial stages of growth, managed by the European Investment Fund (EIF). In the EIF activities are included advising and managing guarantee/debt funds and equity funds-of-funds through national and regional governments and private strategic investors.
- **Venture debt** – to support small, high-risk and incredibly innovative projects, where the needed investment cost is between EUR 7.5 to EUR 50m.
- **Microfinance** – to support microfinance institutions and smaller businesses with low income self-employed through promoting sustainable financial services.
- **Equity and fund investment** – to support investments in Infrastructure and Environment (infrastructure equity and debt funds, environmental funds), Carbon Funds, Sustainable Urban Development (loans, guarantees and equity investments through the JESSICA initiative), Energy Efficiency and Renewables (innovative fund-of-funds GEEREF), Venture capital and private equity

Blending Financial Products

EIB and EIF provide variety of financial products that are combined with additional sources of investments, such as:

- **Structured finance** – for projects that include trans-European transport and energy networks, infrastructure, energy and SMEs using mix of instrument with higher risk profile provided by the Structured Finance Facility
- **Guarantees** – financing large or small, private and public projects through variety of guarantee instruments
- **Private Finance for Energy Efficiency (PF4EE)** – financing energy efficiency investments in projects that support implementation of National Energy Efficiency Action Plans or other EE programs of EU member states, provided by the joint agreement between the EIB and European Commission (EC)
- **Project bonds** – the Europe 2020 Project Bond Initiative by EIB and EC, is financing large-scale infrastructure projects in the sectors of energy (TEN-E), transport (TEN-T) and information and communication technology (ICT)
- **Trust funds – partnering with donors** provide funds directly or combined with financial instruments from the EIB or other financial institutions to improve people's lives in different regions around the world

² Katerina Maneva Mitrovikj, Enviro Presentation at Parndorf Meeting (Burgenland) – 7th June 2018

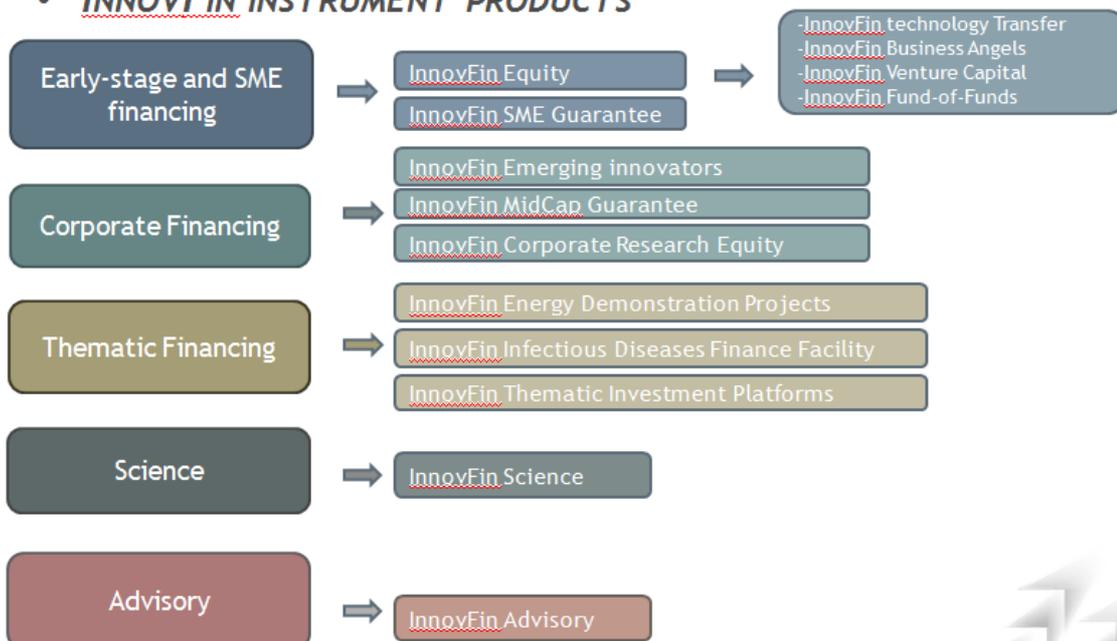
- **European Structural and Investment Funds (ESIF) Financial instruments** – provide loans, guarantees, equity to support economically feasible projects that promote the EU policy objectives
- **Flexible SME funding (JEREMIE)** – support the SMEs financing using EU Structural Funds provided through loans, guarantees and equity
- **Urban development technical assistance (JESSICA)** – Joint European Support for Sustainable Investment in City Areas is initiative that supports the use of EU grant funding (Structural Funds) to make repayable investments (loans, guarantees, equity) in projects such as: urban infrastructure, energy, transport, EE improvements, water/wastewater, university/medical and other facilities, office space for SMEs/IT/R&D sectors, heritage of cultural sites etc.
- **Natural Capital Financing Facility (NCFF)** – supports biodiversity and climate adaptation projects through loans and investments guaranteed by EU
- **The Mutual Reliance Initiative (MRI)** – partnership between the EIB, the French Agency for Development (AFD) and Germany’s KfW Development Bank for effective development of projects investments
- **Transport Infrastructure** – is funding instrument created by the Connecting EU Facilities (CEF) that support direct investments into European transport, energy and digital infrastructures
- **Italian Risk Sharing Initiative for RDI** – financial support in industrial innovation projects by SMEs and mid-caps in Italy, delivered by the EIB, the IT Ministry for Economic Development and the Ministry of Economics and Finance
- **Risk Capital Facility for the Southern Neighborhood** – support the private sector development in the Southern Neighborhood countries
- **Guarantee Fund for Greek SMEs** – support the SMEs and mid-caps in counteracting the impact of the crisis

Regarding innovation the EIB Group (the European Investment Bank and the European Investment Fund) provides financial instruments for innovation projects and research through wide range of loans, guaranties and equity-type funding: **InnovFin- EU Finance for Innovators**.

The InnovFin tools are financial solutions available for:

- small or medium-sized enterprises (SME)
- large private companies
- mid-cap companies
- research organisations or institutes
- universities or public institutions

• INNOVFIN INSTRUMENT PRODUCTS



Early stage and SME Financing

InnovFin Equity provides risk capital financing to enterprises in their early-stage or start-up phases in development.

- **InnovFin TT** supports investments in technology projects through technology transfer funds to expedite innovations in ICT, bio-tech, clean-tech, nanotech, med-tech.
- **InnovFin BA** supports investments into innovative early-stage enterprises and social enterprises at regional, national or cross-border level by business angel managed funds or co-investments funds.
- **InnovFin VC** supports investments in venture capital funds that contribute in funding to enterprises and social enterprises in their early-stage operating in Horizon 2020 innovative sectors.
- **InnovFin FoF** supports investments in funds of funds that focus to build a portfolio of investments into underlying funds with significant geographical spread and early-stage focus.

InnovFin SME Guarantee provides guarantees and counter-guarantees to improve access to loan finance, arranged through financial intermediaries. The guarantees on debt financing between EUR 25 000 and EUR 7.5 million are targeting innovative small and medium-sized enterprises and small mid-caps (<500 employees).

Corporate Financing

- **InnovFin Emerging Innovators** available by the EIB or through loans and equity-type financing by financial intermediary, improves the availability of risk finance for research and innovation fast-growing enterprises and other innovation-related entities.
- **InnovFin MidCap Guarantee** provides guarantees and counter-guarantees to improve access to finance, arranged through financial intermediaries. The guarantees on debt financing of up to EUR 50m are targeting innovative mid-caps (<3 000 employees) which are not applicable under the **InnovFin SME Guarantee**.
- **InnovFin Corporate Research Equity** provides large equity-type investments in the form of contingent loans by the EIB or through financial intermediaries on financing of up to EUR 75m.

The investments are addressed to innovative large mid-caps and large research and innovation programs.

Thematic Financing

- **InnovFin Demo Projects** provides loans, loan guarantees and equity-type of financing between EUR 7.5 and EUR 75m by EIB to innovative demonstration to projects in the field of renewable energy technologies, carbon capture and storage/use, energy storage and smart energy systems.
- **InnovFin Infectious Diseases Finance Facility** provides loans, loan guarantees and equity-type of financing between EUR 7.5 and EUR 75m by EIB to innovative developing medical and diagnostic devices, drugs, vaccines or innovative medical research.
- **InnovFin Thematic Investment Platforms** will provide debt or equity-type of financing, arranged by financial intermediaries and fund managers, to innovative projects in specific thematic sections.

Science

- **InnovFin Science** available by the EIB through debt or equity-type financing from EUR 25m, supports research and innovation investments by universities and public or private research institutions. *InnovFin Science* includes the financing of buildings and other infrastructures directly related to research and innovation activities.

Advisory

- **InnovFin Advisory** support helps clients in successful building their research and innovation projects in order to improve the projects access to finance. *InnovFin Advisory* is focused on financing large projects for which are required long-term investments by offering the following services:
 - business modelling
 - strategic planning
 - capital structure, debt and risk allocation
 - funding sources and their eligibility criteria
 - management of stakeholders
 - more and better usage of public FI

Advisory services

The advisory services are crucial part of the EIB's lending and blending product strategies providing the development and the implementation of the investment programs.

- **InnovFin advisory** - [see above]
- **Support to public-private partnership (EPEC)** – under the PPP the public authority provides payments to the private partner for the provision of the service or grants a right to generate revenues from the provision of the service.
- **Sustainable energy: maximizing investment (ELENA)** – provides grants under the Horizon 2020 program, for technical assistance in the implementation of energy efficiency, transport, and renewable energy projects and programs
- **European Structural and Investment Funds (ESIF) Fis** – [slide 4]
- **FELICITY: Sustainable solutions for cities** – provides advisory services to increase investments in sustainable infrastructure projects that reduce greenhouse gas (GHG) emissions in Brazil, China and Mexico.
- **Municipal Project Support Facility (MPSF)** – provides technical assistance to municipalities in Eastern Partner countries (Belarus, Ukraine, Moldova, Georgia, Armenia and Azerbaijan) to support investments in projects in GHG emission reduction and energy efficiency.

1.2.2. Central Europe Projects with (I)FIs

The EIB and EIF financial instruments are provided through the National Operational Programs or National Development Banks to the SMEs and mid-caps or directly to the large enterprises.

Examples of EIB/EIF financed projects:

- Cohesion Fund Framework Loan II (Hungary)

the loan finance the Operational Programs (OP) Transport and Energy & Environment within Hungary's National Strategic Reference Framework to complement EU grants support and national resources.

- BPER Energy Efficiency FL PF₄EE (Italy)

The framework loan through the Banca Popolare Dell'Emilia Romagna SC finance energy efficiency and renewable energy investments in the private sector for SMEs.

- Gorenje RDI Project (Czech Republic)

The loan approved by the Board of Directors, supports enterprise's research in improved performance, lower use of resources and energy consumption for a range of household appliances.

Country	Number of projects	Sector	Total amount
Italy	1018	Industry/ <u>Energy</u>	19 612 291 952,41 €
Germany	378	Industry/ <u>Energy</u>	30 451 925 859,63 €
Austria	62	Industry/ <u>Energy</u>	2 622 722 299,18 €
Poland	58	Industry/ <u>Energy</u>	3 450 179 250,81 €
Czech Republic	31	Industry/ <u>Energy</u>	3 108 411 191,54 €
Hungary	29	Industry/ <u>Energy</u>	1 303 812 562,24 €
Croatia	4	Industry/ <u>Energy</u>	63 390 482,54 €

Table 1: number of Central Europe projects with IFIs within the cooperation area

Project's name	(I) FI	Agreed amount	Sector	Country	Info
Komerční Banka Energy Efficiency FL-PF4EE	loan	67 500 000 €	Industry Energy	Czech Republic	http://www.eib.org/projects/pipelines/pipeline/20150174
Energy Efficiency Italy FL	Loan	300 000 000 €	Industry Energy	Italy	http://www.eib.org/projects/pipelines/pipeline/20140017
Regione Basilicata 2014-2020 Co-Financing	Loan	33 768 000 €	Industry Energy Transport etc.	Italy	http://www.eib.org/projects/pipelines/pipeline/20150348
Regione Puglia 2014-2020 Co-Financing	Loan	45 000 000 €	Industry Energy Transport etc.	Italy	http://www.eib.org/projects/pipelines/pipeline/20150362
Upper Silesia Urban Framework Program	Loan	411 089 759.63 €	Industry Water, sewerage Transport, etc.	Poland	http://www.eib.org/projects/pipelines/pipeline/20150075
Lublin Municipal Infrastructure II (co-financed with EU grants)	Loan	7 114 708.45 €	Industry Transport Solid waste, etc.	Poland	http://www.eib.org/projects/pipelines/pipeline/20120470
European SMEs Export Funding Platform	loan	12 500 000 €	Industry	DE, AT, IT, LU, FR, ES, NL, SE	http://www.eib.org/info-centre/press/releases/all/2015/2015-239-first-ever-eib-facility-for-buyer-credit-financing-for-european-sme-and-midcap-exporters
Austrian Energy Efficiency FL	loan	35 000 000 €	Industry, Energy	Austria	http://www.eib.org/projects/pipelines/pipeline/20130275
ZABA Energy Efficiency FL-PF4EE	loan	14 000 000 €	Industry, Energy	Croatia	http://www.eib.org/projects/pipelines/pipeline/20160454

Table 2: Multi-criteria list of Central Europe Projects with (I)FIs

(I)FIs stories

InnovFin Mid Cap Growth Finance - Solar Energy Innovation in Germany

- <http://www.eib.org/stories/solar-energy-innovation>

InnovFin SME Guarantee

-A loan from Unicredit Bank backed by the EIB and EC helped a Czech start-up company in producing Frusack reusable compostable bags

- <https://www.youtube.com/watch?v=1ldzvZp3fNA>

- A loan from Deutsche Bank backed by the EIB and EC was used in developing mechanical products for security automation by the Deister electronic company in Germany

- <https://www.youtube.com/watch?v=LQ1Aq2SriuE>

European Fund for Strategic Investments (EFSI): Boosting jobs and growth

-A loan from Komerční banka (Czech Republic) backed by EIF under the Investment Plan for Europe was used in the product development of Vivobar company in Czech Republic

- http://www.eif.org/what_we_do/guarantees/case-studies/efsi_cosme_vivobar_cz.htm

2. Implemented Financial Instruments in the area – Best Practice Examples

2.1 Veneto Region “Energy Fund³”

ROP-ERDF 2007-2013 REGIONE VENETO AXIS 2 ENERGY ACTION 2.1.3

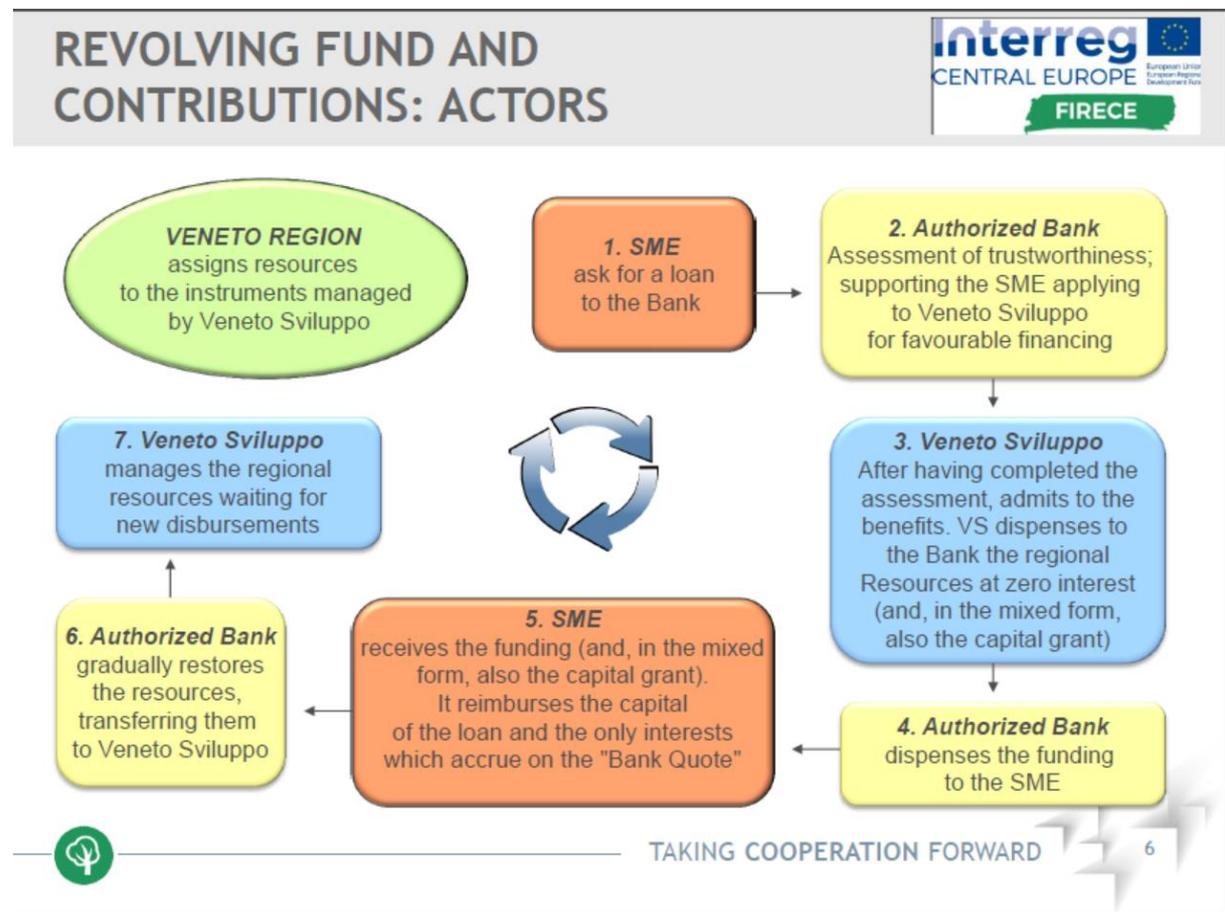
Priority Axis 2 dedicated to Energy of the Regional Operational Program (ROP) 2007-2013 of the European Fund for Regional Development (ERDF).

Line of action 2.1 “Production of energy from renewable sources and energy efficiency”

Action 2.1.3 “Revolving fund for investments aimed at limiting energy consumption”

The Axis 2 aims to contribute to the fight against climate change and reduce dependence on fossil fuels. In order to do that, the Line of action 2.1 is planned to promote the use of renewable sources of energy and to improve its efficiency.

In this sense, the Action 2.1.3 provides an incentive by granting of soft loans through a revolving fund and capital grants for improvement of production techniques to increase the energy efficiency of the plant, adopting measures that allow exploiting the energy potential by using renewable sources and non-conventional power generation systems.



Financial Allocation

Total budget of the Fund: € 53.472.268,91

composed as follows:

A. Public Quote: € 32,800,000,00

- € 12.127.731,09 allocated for capital grants

³ Presentation Kick-off Meeting 14th-15th September 2017 – M. Rampini A. Baldan– Veneto Sviluppo S.p.A. – www.venetosviluppo.it

- € 20.672.268,91 allocated for subsidized loans

B. Private Quote:

- € 20.672.268,91 funding made available from affiliated banks

Beneficiaries

Small and Medium Enterprises (ref. Annex I of EC Reg. 800/2008), with operational headquarters in Veneto (also in associated form)

- Operating ONLY in the sections of the economic activity (ISTAT ATECO 2007 - B, C, D, E, F, G, H, I, J, L, M, N, R, S)

ACTION 2.1.3 - ELIGIBLE PROJECTS

Project must deal:

- 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

All projects:

- lead to achieving energy savings
- are implemented in Veneto
- must be completed and reported within 18 months by the admission to the facilities

Exclusions:

- a) energy production for residential use
- b) adaptation to EU and / or national standards
- c) insulation construction works
- d) vehicles and equipment for the transport of goods and people
- e) simple replacement of fossil fuel type
- f) goods already used

ACTION 2.1.3 - ELIGIBLE AMOUNTS AND COSTS

Eligible amounts: Minimum € 25.000,00 - Maximum € 2.000.000,00

Eligible costs:

Investment in physical capital, 100%

- machinery, setup, equipment (e.g. installation of inverters for motors, engine replacement with other higher-efficiency heat pumps, replacement of boilers, efficient lighting with led lamps)
- building works dedicated to the related machinery/plants

Intangible investment, 100%

- patent rights, licenses, and technical knowledge not patented yet
- management software of the instrumentation

Technical costs

- planning, project management, testing, certification of costs by the external auditor: max 15% of the total cost of the facilitated operation
- energy audit of the production and installations: Max € 10,000.00

ACTION 2.1.3 - FACILITATIONS

Capital contribution not exceeding 23% of the cost of eligible investment (Contribution Quote)

Favorable loan (Revolving Fund):

- Public quote at zero interest, no more than 50% of the funding (Fund Quote);
- Private quote at negotiated rate: Euribor + max 5 points spread, provided by affiliated Banks (Bank Quote).

ACTION 2.1.3 - QUOTES, RATES, DURATION

		%	Rate applied on the quotes
Capital contribution		MAX 23 % of the cost of eligible	--
Favourable loans	Fund Quote	50% of funding	Rate 0%
	Bank Quote	Covering up to 100% financing	Agreed Rate

- Maximum duration of the loan: 84 months
- Agreed rate: Euribor + max 500 bp (DGR n. 117/2012 and DGR n. 2889/2012)

ACTION 2.1.3 - SYNTHESIS

Public Quote allocated: € 23.800.000,00

Extra-budget: € 9.000.000,00

Total budget of the Fund: € 32.800.000,00

composed as follows:

- Capital grants € 12.127.731,09
- Favourable loans € 20.672.268,91

Opening: April 2013

Closing (by regulation): June 2015

Anticipated closure (full use of resources): February 2015

ACTION 2.1.3 - RESULTS

FACILITATIONS PAID			
A) Total Financing	€	42.863.277,28	
B) Total Revolving Fund	€	21.431.638,64	
C) Total Capital Grant	€	11.172.386,05	
B) + C)	€	32.604.024,69	
A) + B) + C)	€	54.035.663,33	

ENERGY SAVINGS ACHIEVED			
Total CO2 (tons)		23.130,95	
Total Giga Joule		424.715,34	
KW Energy Saving		119.390.573,92	

ACTION 2.1.3 - RESULTS

APPLICATIONS RECEIVED: 326

•ELIGIBLE INVESTMENTS: € 60.070.710,96

•FACILITATIONS PAID: € 32.604.024,69

(Revolving Fund + Capital Grant)

•ACHIEVED ENERGY SAVINGS: KW 119.390.573,92

2.2 Emilia - Romagna Energy Fund⁴

Multyscope Regional Fund of public financing

The Multyscope Regional Fund of public financing set up with the Regional Act. n.791/2016 and 1537/2016.

It is a Financial Instrument, according to the previous art. 37 of the EU Reg. n.1303/2013, set up with public resources on the ROP ERDF of ERR 2014 – 2020 and in particular:

Axis 3 - Competitiveness and attractiveness of the production system;

- 3.5.1 Starter Fund

Axis 4 - Promotion of low carbon economy in the territories and the production system.

- 4.2.1 Energy Fund

The Fund is a revolving fund of soft loan financing, privately-funded for the purpose of providing loans at a reduced rate.

FINANCIAL CAPACITY

The Fund consists of a total initial public budget of about

€ 47,000,000.00 on the ROP ERDF of ERR for 2014 -2020 programming period divided into two sub-funds:

- Starter Fund of about € 11,000,000 and the
- Energy Fund of about € 36,000,000

Beneficiaries

- SMEs and large companies
- registered in the Register of Companies
- operating ONLY in the sections of the economic activity (ISTAT ATECO 2007 - B, C, D, E, F, G, H, I, J, L, M, N, R, S)
- with local units in which the investment project is implemented are located in Emilia-Romagna Region
- active at the time of submission of the application
- provided they are not "Undertaking in difficulty" complying with the European Guidelines on State aid for rescuing and restructuring non-financial firms in difficulty (2014 / C 249/01)

The instrument

The Fund provides:

New unsecured-loans at reduced rates with mixed provision resulting partly from the public share (70%) and partly from the private share (30%) for each admissible project.

Every single funding covers 100% of the project

The amount of funding must be between of a min. of € 25,000 and a max. of € 500,000

The duration of the amortization period is between a min. of 36 months and a max. of 96 months (including any pre-amortization period of up to 12 months).

The facilitation is determined by:

- an interest rate equal to 0 on the part of the public share of the Fund
- a rate on the private portion resulting from the spread on the EURIBOR 6

Elegible initiatives

Interventions addressed to improve energy efficiency and to reduce gas emissions causing climate change.

Interventions 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).

⁴ Presentation Kick-off Meeting 14th-15th September 2017 – A. Raimondi, Emilia-Romagna Region

Eligible costs

- a) Works on buildings: expansion and / or restructuring, works functional to the project
- b) Purchase and installation, machine adjustments, plants, equipment, hardware
- c) Acquisition of software and licenses
- d) Technical and targeted consultancy services for the investment project
- e) Costs to preparing an energy audit and / or project development design to carry out the

intervention submitted in the application

Expenditures will have to be submitted later than the date of submission of the application, with the exception of preparation costs of technical documents (listed in e)), which may be dated later than 01/06/2014.

Non-Repayable grants

The company may, at the time of submitting the application, require a non-repayable grant to be charged on technical costs such as energy audit and / or project, which are necessary for the submission of the investment project.

- This contribution, which covers up to a maximum of 100% of the expenditure, considering the chosen aid scheme and the ceiling on the same amount of expenditure, will still be eligible for a maximum of 12,5% of the public funding admitted (up to 8.75% of the funding)
- In the grant communication, the manager will indicate the amount of the disbursed non-repayable grant, specifying the modalities and the timing for the delivery of it
- The reimbursement of the expenses will be paid only after the final project finalization, after its verification. In the event of a difference between the intervention granted and the actual intervention, the deferred grant will be remodeled in order to respect the maximum permissible percentages

Documents to submit for the application phase

Pre-Banking Resolution

Budget Estimates

State aid statement

Energy audit or project

If available, the last two full balance sheets

Grant benefit and aid regime

The public share of funding allocated at zero rate and the non – repayable grant create a public benefit for the beneficiary which will be granted based on the choice made by the requesting party and in accordance with the regulatory constraints under the provisions of the “de minimis” regime according to the EU Regulation 1407/2013.

Preparation of the energy intervention

At the request of the chosen financial aid, an Energy audit will have to be provided, stamped and signed by a qualified technician, and drawn up in accordance with UNI CEI EN 16247 - (parts 1 a 4)

- Definition of ENERGY AUDIT: "A systematic procedure aimed at obtaining an adequate knowledge of the energy consumption profile of a building or group of buildings, one industrial or commercial activity or plant or of public or private services, to identify and quantify cost-effective energy saving opportunities and report the results “
- Where the Energy audit procedure is not applicable, it will be necessary to attach to the request of the aid selected the project of the intervention, stamped and signed by qualified technician, which can be:
 - A Feasibility Study / Preliminary Project / Final Project / Executive Project which shall, however, consist of the following elements:
 - a) Technical report
 - b) Graphic documents
 - c) Analysis of project cash flows, where relevant

Examples

Hereafter an indicative/not exhaustive list of possible and eligible interventions to reduce the Energy consumption:

- Thermal insulation
- Replacement of transparent closures and fixtures
- Replacement of winter air conditioning systems
- Redevelopment of lighting systems
- Installation of automatic management and control technologies for thermal and electrical installations
- Installation of solar thermal collectors
- Installation of photovoltaic systems
- Industrial heat recovery
- Efficiency of refrigeration systems
- Efficiency and replacement of machinery
- Efficiency of the electric engine park of the production site
- Energy Reduction of compressed-air compression plant
- Savings in pumping systems
- Cogeneration plants

2.3 Environment Funding in Austria (UFI)⁵

Low Carbon transition financial instruments for Companies

Program Environment funding in Austria (UFI)

- Support of consultancy (in cooperation with the Regions of Austria)
- Support of investments (partly in cooperation with the Regions of Austria)

1) Support of consultancy (in cooperation with Burgenland)

Regional program:

EUB – Energy and Environmental Consulting of Burgenland

- 6 Chapters (“door opener”, Environment Certification, Resources and liter, Energy and climate, local agenda 21, mobility, air quality)
- 22 Measures (from 0,5 up to 15 consulting days)

EUB Consulting is used as a door opener to start investment for low carbon transitions!

2) Support of investments (UFI) by KPC in Austria

General facts

- Active program for more than 20 years
- Program fit into sustainable economic and employment growth
- Very good results in environmental protection

Acting framework

Grants for:

- use of renewable energy, increasing energy efficiency, mobility
- measures, avoidance of air pollution and noise, water protection

Reduction of:

- energy consumption
- CO₂ production

Examples of eligible projects:

Energy Efficiency in buildings

- Thermic building restoration – funding up to max. 35%
- Energy efficiency construction methods for new buildings – max. 0,65 EUR per kWh reduction

Energy Saving in companies

- Building equipment, production processes – funding up to max. 35%
- Optimizing outdoor lighting – up to max. 50 EUR per light spot
- Heat recovery from cooling - and ventilation devices – up to max. EUR 10.400
- LED indoor lighting – funding up to max. EUR 700/kW
- Energy efficient refrigerators – up to EUR 1.200 per machine / category
- Air conditioning / cooling for companies – up to 35%

Electro mobility for companies

- E-automobile – funding up to max. EUR 1.500 per automobile
- E-minibuses, commercial vehicles – up to max. EUR 20.000 per vehicle
- E-Bikes – up to max. EUR 375 per bike
- Loading infrastructure – up to EUR 10.000

Eco-friendly heating

- Wood heating – funding up to max. EUR 32.250
- District heating connection – funding up to max. EUR 17.500
- Thermal solar system – funding up to max. EUR 19.500
- Heat extraction – funding up to max. 35%

⁵ Kick Off Meeting FIRECE 14th-15th September 2017 - Forschung Burgenland GmbH, Johann Binder

- Wood heating for companies' self-sufficiency – funding up to max. 35%
- Local heating based on renewable energy sources – funding max. 35%
- District heating access for companies – funding up to max. 30%
- Heat pump for companies – funding up to max. EUR 21.200
- Thermal solar plants for companies – funding up to max. 25%
- Power generation as "island position" based on renewables – max. 35%
- Production of biogenic fuels – max. 25%
- Energetic use of biogenic raw / waste material – max. 25%
- Natural gas -combined heat and power generation – max. 30%

Main figures in 2015:

Funding projects: 2.172

Subsidies in EUR: 69.9 Mio.

Savings Co²: 308.114 t/a

Renewable energy production: 459.119 MWh/a

Energy Savings: 469.753 MWh/a

Green Jobs: 5.822

Projects, grants, companies funded in 2015:

Projekte



Summe der Förderungen (in Mio. Euro)



■ KMU ■ GU ■ Sonstige

Quelle: KPC 2016

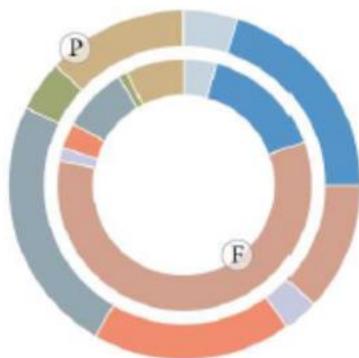
Grants to technologies in 2015:



KMU nach Technologien 2015	(P) Projekte	(F) Förderung
Erneuerbare Energieträger	672	25.190.106
Effiziente Energienutzung	834	9.445.363
Ressourceneffizienz	1	141.320
Luftverbessernde Maßnahmen	7	215.201
Gefährliche Abfälle	1	113.122
Forschung, Demonstrationsanlagen	2	899.335
Lärmschutz	1	18.131
Gesamtergebnis	1.518	36.022.578

Quelle: KPC 2016

Grants to industrial sectors in 2015:



KMU nach Branchen 2015	P Projekte	F Förderung
Sonstiges	78	1.597.783
Sachgütererzeugung	302	5.490.718
Energie- und Wasserversorgung	182	21.114.023
Bauwesen	47	530.371
Handel	279	1.244.302
Beherbergungs- & Gaststättenwesen	361	3.008.975
Realitätenwesen	71	419.276
Sonstige Dienstleistungen	198	2.617.128
Gesamtergebnis	1.518	36.022.578

Quelle: KfW 2016

Category: Thermic Building Restauration

Investment: Thermal refurbishment - total building

Company: Hofstetter

Investment: EURO 0,67 Mio.

Subsidies: EURO 0,2 Mio.

Saving CO²: 331 tons/a



Category: Consultancy Service

Investment: Energy conception with a bundle of measures

Company: Häusermann

Investment: EURO 0,28 Mio.

Subsidies: EURO 74.170,-

Saving CO²: 210 tons/a



Category: Complex Energy Efficiency Measurement

Investment: Energy conception with a bundle of measures

Company: Kirchdorfer Zementwerk

Investment: EURO 25 Mio.

Several projects

Saving Heat: 6 Mio KWh/a



Category: Efficient use of Energy

Investment: Optimization of Process

Company: Salinen AG

Investment: EURO 5,6 Mio.

Subsidies: EURO 1,5 Mio.

Saving CO²: 5.703 tons/a

Saving Energy: 15,5 Mio. KWh/a



Category: Heat pumps for industry

Investment: Heat pump

Company: Häusermann

Investment: EURO 24.853,-

Subsidies: EURO 1.848,-

Saving CO²: 10,27 tons/a



Category: Innovation and Demonstration Systems

Investment: New printing plant

Company: Janetschek GmbH.

Investment costs: EURO 1,68 Mio.

Subsidies: EURO 0,296 Mio.

Saving material: 36 tons/a



Category: Innovation and demonstration

Investment: Demonstration plant of alga for fuel

Company: Ecoduna GmbH.

Investment: EURO 2,1 Mio.

Subsidies: EURO 0,55 Mio.

Oil production: 3.390 l/a

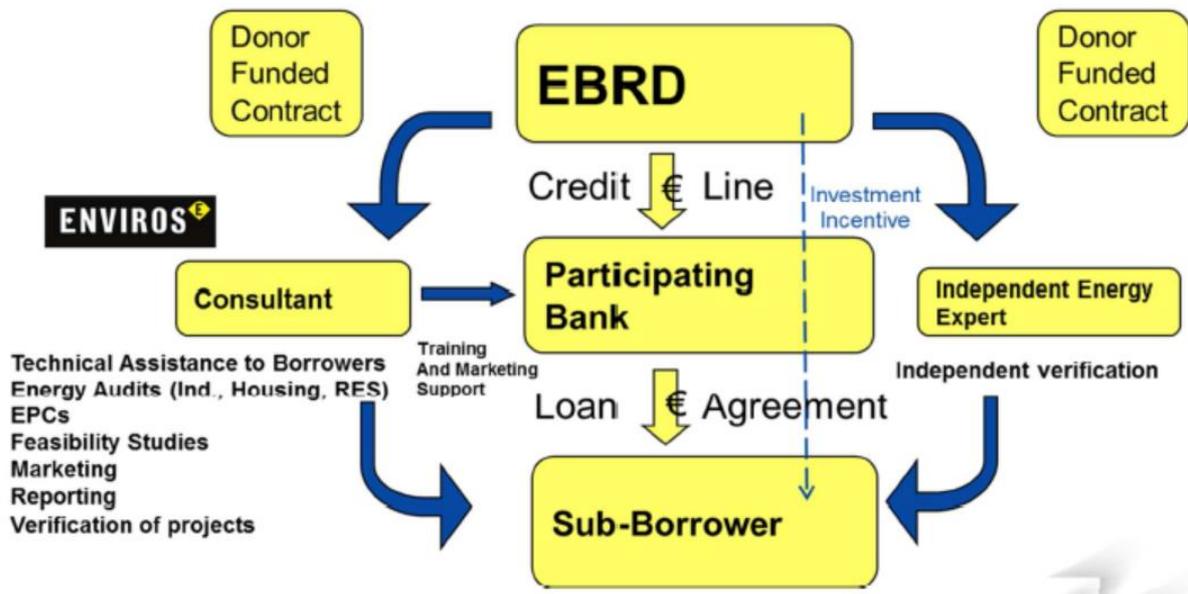


2.4 Czech Republic Examples of financial instruments⁶

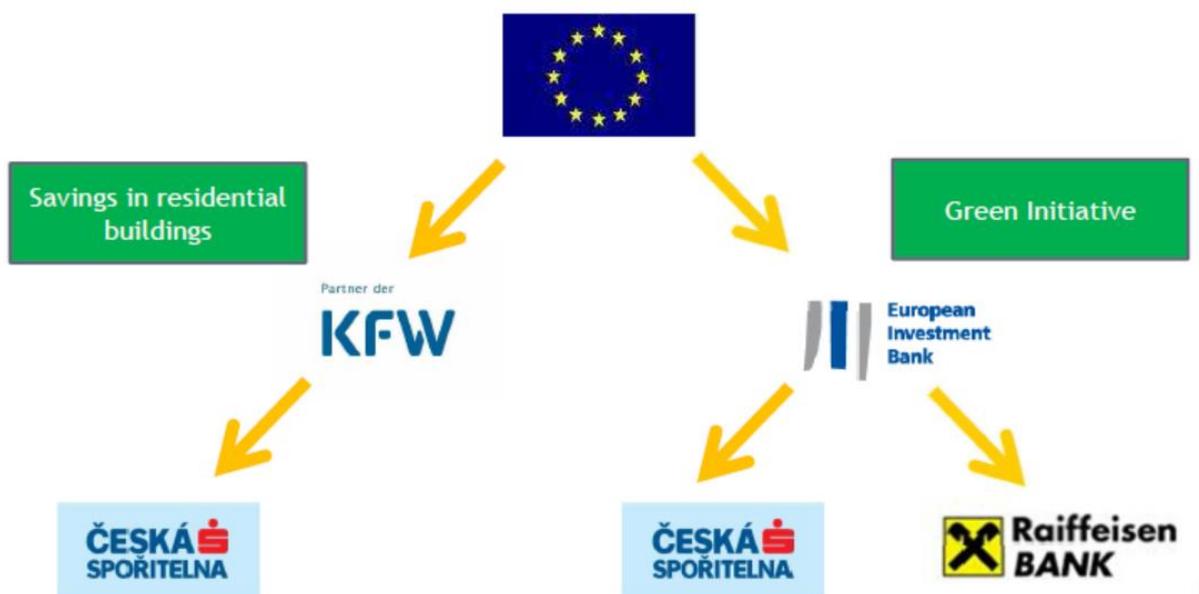
Types of financial instruments:

1. Operational programs from SCF funding
 1. Investment projects (grant funding 30 – 50 %)
 2. Financially attractive, but high administration
2. National funding
 1. Funding for small investment projects, studies etc. (50% to 90%)
 2. Relatively little administration, but limited budget
3. Funding / loans through international financial institutions (e.g. EIB, EBRD) topic of this presentation

EBRD CREDIT LINE EXAMPLE



SME FINANCE FACILITY ENERGY EFFICIENCY WINDOW



⁶ Kick Off Meeting FIRECE 14th-15th September 2017 - Michael ten Donkelaar, ENVIROS, Czech Republic

SME FINANCE FACILITY ENERGY EFFICIENCY WINDOW (2013 – 2015)

- Support investments in energy efficiency in SMEs
- Motivate SMEs to realize energy saving projects
- Incentivize banks and leasing companies to finance energy saving projects
- Promote growth and increase competitiveness in the long run
- Limit the impacts of the financial crisis
- Way of support: 10 to 14% grant from the reimbursed loan after project verification
- Funds channelled through local banks – ČS (Czech Savings Bank) and RB (Raiffeisenbank)

Eligibility criteria

10%

KfW - ČS

- Focus: Reconstruction of residential buildings
- Potential beneficiaries: Housing associations and home-owner associations
- Required indicator: Energy savings in heating at least 30%

10%-14%

EIB – ČS + RB

- Focus: Reconstruction of buildings for housing and commerce
- Industry and services
- Renewable energy sources

Binding indicators:

- Energy savings in buildings at least 30%
- Energy savings in production processes at least 20%
- CO2 emission reduction at least 20%

NEW FINANCIAL INSTRUMENTS

Českomoravská záruční a rozvojová banka

Czech Moravian Guarantee and Development Bank – ENER program

<http://www.cmzrb.cz/folder/38/display/>

Komerční banka - Euroenergie

Investment loan with guarantee from the European Investment Bank for financing energy saving projects

<https://www.kb.cz/cs/uvery-a-financovani/financovaniinvestic/euroenergie/#detaily-produkt>

About EuroEnergie Loan

Subsidized loan intended for financing of private sector investments in energy savings measures

Lower interest rates thanks to funds of the European Investment Bank

Because of 80% guarantee of the European Investment Bank for coverage of potential losses there are lower collateral requirements for clients.

Loan amounts available:

CZK 1-136 million – small and medium-sized enterprises or energy savings projects for buildings

CZK 1-30 million in other cases

Minimum loan term of 3 years

Examples of eligible investment projects

- Energy efficient technologies for buildings
- Public lighting projects
- Energy efficiency in industrial facilities and companies in general (different technology, renewal of production resources – with higher energy)
- Highly-efficient co-generation of heat and power
- Remote heating and cooling
- Savings measures may also involve energy production for heating or cooling from renewable energy sources – the energy produced must be used for own consumption

Eligibility criteria

- Small and medium-sized enterprises with up to 250 employees and turnover of up to CZK 1.3 bn. (EUR 50 million) or balance sheet amount up to CZK 1.1 bn. (EUR 43 million)
- Large enterprises – maximum loan amount limited to CZK 30 million (except for energy savings projects for buildings)

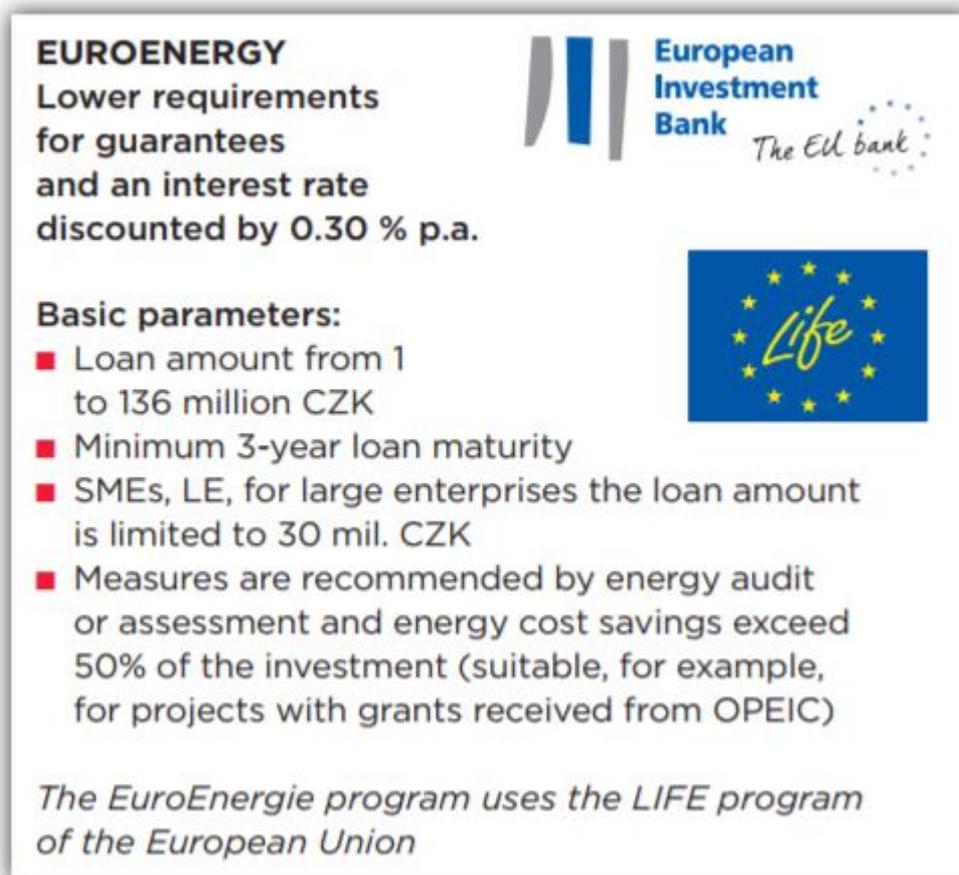
Clients whose projects received grants under OPEIC – Energy Savings program

The expected energy cost savings the useful economic life of the assets must be more than 50% of the initial investment outlay

Enterprises implementing measures recommended because of energy audit (or energy assessment, as appropriate)

The EuroEnergie program uses sources from the Program LIFE of the European Union.

<https://www.kb.cz/en/loans-and-financing/financing-of-investments/euroenergie-loan/#product-details>



EUROENERGY
Lower requirements
for guarantees
and an interest rate
discounted by 0.30 % p.a.

 **European
Investment
Bank**
The EIB bank



Basic parameters:

- Loan amount from 1 to 136 million CZK
- Minimum 3-year loan maturity
- SMEs, LE, for large enterprises the loan amount is limited to 30 mil. CZK
- Measures are recommended by energy audit or assessment and energy cost savings exceed 50% of the investment (suitable, for example, for projects with grants received from OPEIC)

The EuroEnergie program uses the LIFE program of the European Union

Key features of new instruments - CMZRB:

- CMZRD also partly covers the costs of energy assessment (80% - up to 100,000 CZK)
- 7% bonus of the loan amount after final verification (and reaching at least 5% energy savings)
- Loans 2 – 20 mln CZK

Key features of new instruments - KB:

- Financial benefit is lower interest rate (in case of KB – 0.3% benefit)
- For loans from 1 to 136 ML CZK
- KB does not cover technical assistance, but in grant application simplified (and cheaper) energy assessment required for small projects up to 2.5 ML CZK
- Standardized list for measures related to insulation, lighting and heating systems
- KB: due to guarantee from EIB relatively low interest rate for projects that would normally be considered as “risky” – and would have significantly higher interest rate.

3. Lessons learned from the experiences done

From the analysis of the experiences learned above, several elements emerged that a Region should consider for the design of the Financial Instruments. In particular:

- the choice to use a revolving fund is rewarding in terms of sustainability. In general, in fact, the refunds allow to refinance funds;
- the combination of loans and training is winning. Provide training on several aspects on the business development improves entrepreneurial skills, increasing the chances of creating jobs and reducing the risk failures;
- it would be desirable to offer the beneficiaries a counselling and tutoring service and accompaniment for the first year of activity, to guarantee a more effective use of financial resources;
- it is reasonable that, at the stage of submission of the application by the beneficiaries, the subject deputed to the coaching and tutoring service is different from the manager of the fund;
- to reach the widest number of beneficiaries, it is important to highlight the activities communication, both in terms of results and opportunities offered by the Funds;
- it is necessary to pay attention, in the definition of a Financial Instrument, to the possible difficulties of coordinate the various grants for the same object (e.g. other financial opportunities at regional, national and Community level);
- it is necessary to assure stability and certainty over the time to the financial instrument.

4. Assessment criteria to assess public funding actions

The definition of a set of indicators that translate the regional energy objectives into expected results represents a fundamental element to allow the assessment the public funding action.

Thanks to the Regional Operative Programs it is possible to identify two types of indicators: Result indicator and output indicator. See Table below,

These should act as a guide for assessing the effectiveness and the development of revolving funds

Output and Results indicator for Low carbon Economy

Type of indicator	Indicator	Unit
Result	Reduction on Industry Energy consumption	GWh
Output	Number of Companies receiving financial support	Nr of Companies
Output	GHG emission reduction	Tons of equivalent CO2
Output	Energy Savings	GWh
Output	Additional Renewable energy power	MW
Output	Reduction of matter emission (PM10)	Kg PM10
Output	Reduction of NOx emissions	Kg NOx

Each indicator needs a starting level (Baseline) and a final target (Target)

Along with these indicators (indicated within Regional Operative Programs) other financial indicators could be used.

In the following table result, same additional indicators are described. The performances can be measured using standard financial indicators, such as the rate of repayment and non-performing loans.

Indicator	Description
Refund Rate	Share of refund made on the total eligible
Delivery Rate	Percentage of investment delivered on the total available fund
Default Rate	Percentage of failures
Leverage Effect	

It should be emphasized that the definition of indicators is the basic element of a system that will allow the monitoring of the performance allowing consequently to carry out appropriate corrective actions or one review of the investment strategy.

The following step is the creation of an information system for the decision-making support.

For this purpose, it will therefore be necessary to set up an effective system for the collection, organization and analysis of data to facilitate the setting of subsequent evaluations:

- evaluation during the planning period, to be carried out, as established by the plan evaluation, to assess how the support from the ESI funds contributed to the achievement of the objectives of each priority;
- ex-post evaluation.

