



Report on “N. 1 model for financial tool in each region”

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1 INTRODUCTION

Local energy planning is a vital process for analysing and evaluating the current conditions (local energy demand, supply and RES resources), defining of the key mitigation actions and monitoring their implementation. When putting plans into action, access to finance is the key element for turning vision into tangible projects.

EMPOWERING project partners, working closely with the participating local and regional authorities, manage to recognized the challenges of financing energy efficiency and renewable energy projects, while they assisted them in inventing, innovating and adapting existing financing tools for sustainable energy investments, in order to trigger not only private investments and but also leverage on public investments.

2 OBJECTIVES

Moving towards energy transition with a clear view to decarbonise the economy poses great challenges. These which cannot be met solely through grant resources and traditional forms of investments. The same challenges are met when sustainable energy investments are needed to be implemented in the framework of the local sustainable energy actions plans.

Traditional investments and financial markets consider risk and risk management as high priority when evaluating projects to be funded. Less risk means alternative investment vehicles, different investors, but also different market structures to manage those risks effectively.

Innovative financial schemes could contribute to the mitigation of the risks associated with investing in new markets and sectors, provide adequate private finance supply for sustainable energy investments and maximise the leverage ratio of private finance to public funds.

What are innovative financial instruments?

Innovative financial instruments are a range of activities such as

- participation in equity (risk capital) funds
- guarantees to local banks lending to a large number of final beneficiaries, for instance small and medium-sized enterprises (SMEs)
- risk-sharing with financial institutions to boost investment in large infrastructure projects (e.g. the Europe 2020 project bonds initiative or the connecting europe facility financial instruments).

- **Figure 1: Definition of Innovative financial instruments by European Commission**¹

EMPOWERING project partners allocated two different work tasks in order to enhance the knowledge of regional authorities:

- to attract public and private investments,
- to explore alternative means of financing energy projects and measures,
- to enhance their knowledge in innovative funding schemes in order to secure more efficient use of public funds as well as,
- to create a model of an alternative – innovative financial instrument covering different solutions to be used directly by municipalities or to be launched by regional authorities.

3 CONTEXT OF THE REPORT

3.1 REPORT & CONTEXT

In the framework of the EMPOWERING project, the representatives from the participating regional authorities collaborated with Regional project partners on capacity building

¹ (Source: https://ec.europa.eu/info/business-economy-euro/growth-and-investment/financing-investment/innovative-financial-instruments_en)

programmes and explored alternative means of financing for sustainable energy efficiency projects and measures.

In the dedicated task of the project (Task 4.3) capacity-building activities regarding innovative funding schemes and financial instruments and mechanisms were arranged by the regional project partners for regional representatives. This was primarily done through workshops.

A common theme during the workshops was EU funding. This is still a tool relatively unused in certain regions and enhanced knowledge in that area is therefore seen as important and potentially effective. Existing national, regional and local funds were also discussed. For all these, it became clear that improved planning and organization is needed to improve results and increase the success regarding grants.

Some financial instruments were discussed over which that the regional bodies themselves might have decision power over. Apart from the funds mentioned above, these include tax deductions for prioritized investments, and allocation of necessary budget resources, combined with long-term commitment. Resources and commitment should take into consideration both the work done by the regional body itself, and the work that has to be done by others.

Another conclusion is that regarding multi-annual commitment, different financial instruments should be created for financing an integrated development strategy by consensus to avoid disruption in sustainable development of the region.

Some of the more innovative financial instruments and mechanisms discussed were:

Crowdfunding. This means funding of a project by raising money from a large number of people. Several models of crowdfunding exist, classified in two main categories, differentiated by the relationship between the funders who provide financial resources and those that receive the funds to implement a project. 1) Donation crowdfunding, where the contributions of the funders are not connected to a financial return. 2) Investing crowdfunding, where financial instruments are sold which can be shares, shares in assets or returns depending on the financial performance

Revolving Funds. The starting point of a revolving fund is a fund dedicated to a certain set of measures. These measures are expected to lead to lower costs or increased income for those using the fund. Some or all of the savings or extra income is sent back to the fund, making it possible to hand out even more money from the fund.

Climate or green bonds. An investing body (e.g. a bank or the public sector) hand out bonds to investments with a clear benefit for e.g. adaptation or energy efficiency. The terms for the bond are better than comparable bonds without ecological demands.

ESCO (energy service company). The ESCO solution offers a performance ‘guarantee’ which can take several forms. The guarantee can revolve around the actual flow of energy savings from a retrofit project. Alternatively, the guarantee can stipulate that the energy savings will be sufficient to repay monthly debt service costs. Financing is arranged so that the energy savings

cover the cost of the contractor’s services and the investment cost of the new and more energy efficient equipment.

Building upon the outcome of the capacity building programme, the regional energy vision drafted and taking into account the priorities set by the local authorities in terms of sustainable energy projects included in the Action Plans, the regional project partners performed a qualitative assessment on the available funding mechanisms in each region based on the degree of applicability (opportunities and barriers) and the degree of effectiveness of the funding mechanism (contribution to the fulfilment of the targets set by the vision). The assessment aimed to provide information on the most promising funding solutions to be taken into consideration when the model of the financial instrument is drafted.

In the framework of the H2020 CITYinvest Project² an analysis and comparison of various innovative financing models on financing for energy efficiency renovations of public buildings that have already been developed across Europe was elaborated. EMPOWERING Project partners used this material as a source for inspiration, replication or further exploitation.

3.2 FINANCIAL INSTRUMENTS FOR SUSTAINABLE ENERGY INVESTMENTS

3.2.1 BUILDING UPON THE COVENANT OF MAYORS FOR CLIMATE & ENERGY INTERACTIVE FUNDING GUIDE

The EMPOWERING project scope is strongly linked to the Covenant of Mayors for Climate & Energy initiative, by providing support for the development, implementation and financing of integrated energy strategies and related Sustainable Energy (& Climate) Action plans. Consequently, all materials and support available for the Covenant of Mayors Community were utilized and /or further exploited throughout the project implementation.

The financing opportunities for the implementation of the projects included in the Sustainable Energy & Climate Action Plans as presented in the interactive funding guide of the Covenant of Mayors have been taking into account for the qualitative assessment of the available funding mechanisms in each region.

² <http://www.cityinvest.eu/financing-models-matrix>

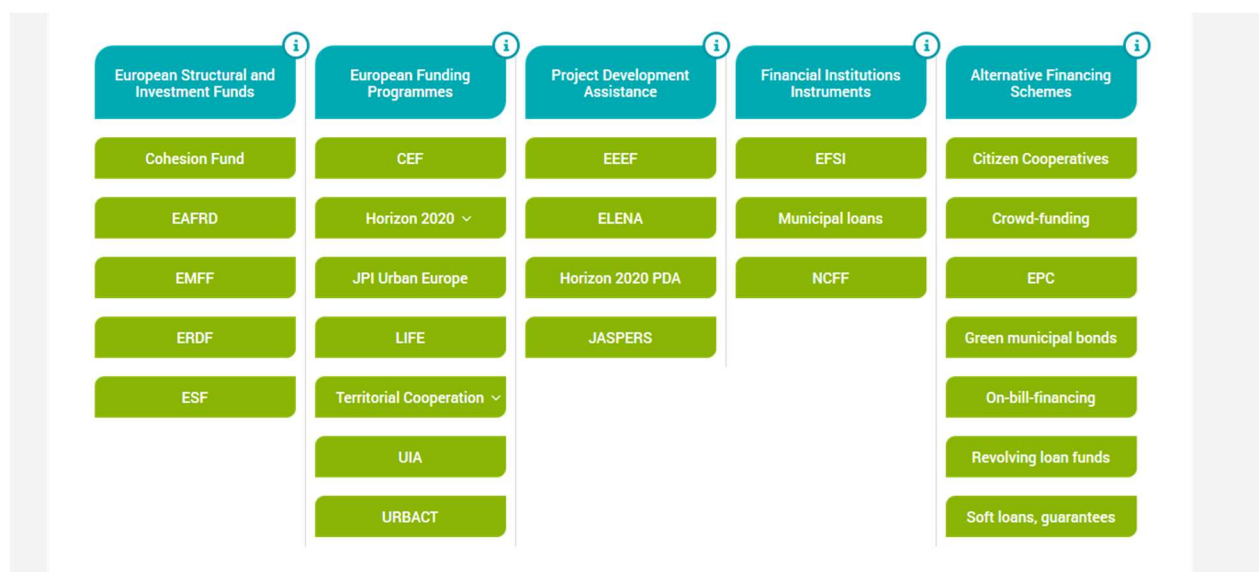


Figure 2: Covenant of Mayors- interactive funding guide³

3.2.2 THE EMPOWERING PROJECT APPROACH

In the framework of Task 5.4, EMPOWERING regional project partners performed a qualitative assessment of the funding solutions included in the CoM funding guide as well as on other funding instruments and financial incentives available in their region and/or country. The aim of this assessment was to map and match the financial instruments taking into account the actions identified in the SEAPs/SECAPs in their territory, the priorities set in the regional energy vision and the outcome of their interaction with the regional representatives throughout the project duration.

For this assessment, a dedicated supporting file was elaborated by CRES with the support of SVIM in which the financial instruments, the barriers, opportunities and the degree of applicability and effectiveness could be matched for a given set of projects, sector and Implementation area.

³ <https://www.covenantofmayors.eu/support/funding.html>

The Regional Project partners worked on the following funding mechanisms/instruments in order to identify the most promising ones for their region.

Table 1: List of financial instruments/ mechanisms assessed in each region

European Structural and Investments Fund
Cohesion Fund
European Agricultural Fund for Rural Development
European Maritime and Fisheries Fund
European Regional Development Fund
European Social Fund
European Funding Programme
Connecting Europe Facility
Horizon 2020 (Horizon Europe)
JPI Urban Europe
LIFE
Territorial Cooperation
Urban Innovative Actions
URBACT
Project Development Assistance
European Energy Efficiency Fund (EEEF)
European Local Energy Assistance (ELENA)
Horizon 2020 Project Development Assistance (PDA)
Joint Assistance to Support Projects in European Regions
Financial Institutions Instruments
European Fund for Strategic Investments (EFSI)
EIB – Municipal Framework Loans
Natural Capital Financing Facility
Alternative Financing Schemes
Citizen Cooperatives
Crowd-funding
Energy Performance Contracting
Green municipal bonds
on-bill-financing
Revolving loan funds
Soft loans, guarantees
Other Financial Instruments
feed in tariff
tax deduction

The main opportunities & barriers included in the supporting file are illustrated below:

Table 2: List of Opportunities and Barriers included in the qualitative assessment of the available financial instruments.

<i>Opportunities and Barriers</i>	
<i>Institutional context</i>	Municipality's ability to utilize the "instrument/mechanism" in terms of internal conditions: a) culture: attitude, professionalism, sensitivity & knowledge, b) structure: organization & technical capacity, municipality's readiness
<i>Regulatory context</i>	a) Municipality ability to utilize the "instrument/mechanism" with regards to its remit b) rules & laws
<i>Timing</i>	With regards to the schedule of actions implementation
<i>Targeting</i>	Project characteristics: (barrier) Energy is not part of the core business (barrier) type of project not eligible, (opportunity) project maturity (bankable)
<i>Previous experience</i>	Lack (barrier) or Vast (opportunity)

List of type of projects and Sectors included in the supporting file

Type of project	Sector
EE buildings	Municipal buildings
EE public lighting	Tertiary (non municipal) buildings
EE transport	Residential buildings
EE other	Public lighting
Renewable Energy	Industry
	Municipal fleet
	Public transport
	Private and commercial transport
	Agriculture, Forestry, Fisheries
	Waste management
	Waste water management
	Other non-energy related

Then the project partners recognized the degree of applicability of the funding mechanism in each region (opportunities and barriers) and the degree of effectiveness of the funding mechanism (contribution to the fulfilment of the targets set by the vision).

The degree in each case was defined as follows:

Level	Degree of Applicability
5	(almost) no barriers
4	a few barriers

3	some barriers
2	mainly barriers
1	only barriers

Level	Degree of effectiveness
5	high impact
4	medium impact
3	low impact
2	no impact
1	not included in the vision

4 MODEL FOR AN INNOVATIVE FINANCIAL INSTRUMENT FOR SUSTAINABLE ENERGY INVESTMENTS TO BE LAUNCHED IN EACH EMPOWERING PROJECT REGION.

The results of the assessment performed by the EMPOWERING regional partners, as well as the proposed financial solutions identified in each region are presented in the following sections.

4.1 MARCHE REGION - ITALY

Context of the qualitative assessment in the region

The context of the qualitative assessment in the Region derives from what was analysed in the Empowering project through the capacity building program, the support to the Municipalities in drafting the Sustainable Energy (and Climate) Action Plans - SECAPs - and through the analysis of the regional energy balance and future regional actions in a 2050 vision.

The activities of the Capacity building program identified financial instruments at European, national and regional level, public and/or private, available for energy efficiency and renewable energy source production. In order to carry out the different workshops with the municipal and regional representatives of the Empowering's Local Energy Board of Marche Region, SVIM identified the most interesting financial instruments, for the territory in terms of replicability and effectiveness. From the carried out analysis, the most common financial instruments were identified as the most effective instruments at territorial level, in terms of energy efficiency and RES exploitation. However, the wish to go further and to experiment with more innovative and less common instruments proved to be a common will. Some of the innovative financial instruments that were presented during capacity building are:

- Horizon 2020
- LIFE
- Project Development Assistant / Elena
- Revolving loan funds
- Crowdfunding
- Energy performance contracts

At the municipal level, most of the actions that took place in the past were based on the exploitation of regional, national and European incentives. The cases of combination of different financial instruments are rare. In the case of not obtaining the funds to carry out the interventions, few or no attempts were made, especially for small municipalities, in order to find alternative solutions. Joint actions involving several municipalities are rare in order to exploit a leverage effect and make energy efficiency measures attractive to investors. On a private level most of the interventions took place thanks to national incentives concerning energy efficiency and RES exploitation. There was a considerable growth in the area of photovoltaic systems thanks to incentives present in the past while for energy efficiency there are a significant number of interventions also in the present thanks to the persistence of incentives.

The most used and effective financial instruments at both public and private level are:

- European Regional Development Fund
- “Conto termico” (funds for public and private bodies on energy efficiency’s investments for thermal energy in buildings)
- “Conto energia” (feed in tariff for photovoltaic energy – available in the past for public and private sector)
- Tax deduction (for energy efficiency in buildings, with credit transfer to utilities in case of intervention in condominium for energy efficiency in private buildings)
- CONSIP (a joint-stock company, held by the Italian Ministry of economy and finance (MEF), that act with public tenders to have useful standard services, even in energy sector, for public contracts)

About the regional energy vision, planning has been virtuous in the past thanks to the political and technical interest in intervening for the maximum reduction of emissions. To this goal, one of the successful interventions in terms of innovation was the “Marte” project where, through Project Development Assistance (Horizon 2020 PDA), European structural funds distributed at regional level (ERDF) and further incentives, made investments with Energy Performance Contracts in the public health buildings. Furthermore, the Region's interest is not only to intervene in its own assets but also to support the Municipalities in a widespread energy planning, encouraged also with additional scores for the purpose of obtaining incentives for those who have joined the Covenant of Mayors. The financial instruments proposed are:

- Funds for the development of local policies to support energy planning
- Increase in the territory of funds and interventions aimed at greater use of renewable sources, greater energy efficiency and use of sources with lower emissions of greenhouse gases, with reward scores for members of the Covenant of Mayors
- Support to municipalities to participate in European projects for energy efficiency and renewable energy investments
- Management of European funds for structural investments at Regional levels (ERDF and others).

Major Outcomes of the qualitative assessment:

The results of the qualitative evaluation performed concern:

- Presentation of the most common of type(s) of projects & sector(s);
- Description of the most common barriers and opportunities;
- Presentation of the most promising financial mechanisms/ instruments;

The most common types of projects for sectors of “Municipal buildings, equipment and facilities” and “public lighting” are:

- Actions in retrofitting the envelope and windows replacement
- Replacement of boilers for domestic hot water and building climatization systems
- Replacement of low efficiency lamps in public buildings
- Replacement of public lighting systems with LED lamps and smart control

The most common types of projects for sectors of “Tertiary buildings” and “domestic buildings”:

- Building thermal renovation
- Replacement of traditional boilers with new condensing boilers or heat pumps
- Replacement of doors and windows
- Solar thermal panels
- Replacement of low efficiency appliances
- Replacement of low efficiency lamps

The most common types of projects for transport sectors are:

- Switch to high efficiency vehicles and/or electric cars
- Improving the use of bikes with cycle paths and cycling facilities
- Increase the use of public transport

The most common types of projects for local electricity production is:

- Energy production from photovoltaic systems

- Energy production from hydroelectric systems
- Energy production from wind power plants
- Energy production from biofuel

The most common barriers are:

- Previous experience (lack of knowledge and experience on how to use innovative financial instruments improve the use of few financial tools available) for:
 - Energy performance contract
 - Project development assistant (for municipalities)
 - Use of combined financial instruments
- Timing (funds arrive in different period for different actions while a combination of interventions can reduce the cost and improve the effectiveness, such as in the case of intervention for seismic combined with energy efficiency) for:
 - Public sector using a combination of different incentives and tools (EPC + soft loans + incentives)
- Targeting (funds that are not specific for energy efficiency and GHG emissions reduction) for
 - European Maritime and Fisheries Fund
 - European Agricultural Fund for Rural Development
- Regulatory context (the law and the standards increase the difficulties in actions for energy efficiency and the use of renewable energy such as the difficulties in applying new innovative tools according to the old laws and/or standards)
 - EPC (difficulty to apply according to the laws)
 - Soft loans
- Institutional context (difficulties in changing the tools and the operative actions to improve the actions, due to lack of knowledge of technicians/installers/sellers and lack of enough incentives for energy efficiency and renewable energy sources)
 - European Maritime and Fisheries Funds
 - European Agricultural Fund for Rural Development
 - Horizon 2020
 - LIFE
 - Revolving loan funds

The most common effectiveness opportunities are the follows:

- Previous experience – Timing – Target - Regulatory context - Institutional context for:
 - Project development assistant (for the region)
 - European Regional Development Fund
 - Tax deduction – ECOBONUS (with credit transfer for condominiums)

- Conto termico (national fund for thermal production/saving)

Description of the proposed financial solution(s) to be used directly by the municipalities:

Type of project(s): EE buildings

Sector(s): Municipal buildings

Scope: Retrofitting of building envelope and/or technological system for air conditioning and hot domestic water

Beneficiaries: Municipalities

Financial Instruments: European Regional Development Fund (can be used with: Conto Termico – Energy performance contract - Horizon 2020 Project Development Assistance (PDA)

Type of project(s): EE buildings

Sector(s): Municipal buildings – Tertiary buildings – Domestic buildings

Scope: Retrofitting of building envelope and/or technological system for air conditioning and hot domestic water

Beneficiaries: Municipalities and Regions

Financial Instruments: Conto termico

Type of project(s): EE buildings

Sector(s): Tertiary buildings – domestic buildings

Scope: Retrofitting of building envelope and/or technological system for air conditioning and hot domestic water

Beneficiaries: Municipalities

Financial Instruments: Tax deduction (with credit transfer in case of condominium)

Type of project(s): EE buildings

Sector(s): Municipal buildings

Scope: Retrofitting of technological system for air conditioning and hot domestic water and management

Beneficiaries: Municipalities (Provinces and Regions)

Financial Instruments: CONSIP

Type of project(s): EE Public lighting

Sector(s): Public lighting

Scope: Retrofitting of public lighting systems

Beneficiaries: Municipalities

Financial Instruments: European Regional Development Fund (can be used with: Energy performance contract - Horizon 2020 Project Development Assistance (PDA) – White certificates)

Type of project(s): EE Public lighting

Sector(s): Public lighting

Scope: Retrofitting of public lighting systems

Beneficiaries: Municipalities

Financial Instruments: CONSIP

Type of project(s): EE transport

Sector(s): transport

Scope: improve the use of electric cars with charge systems installation on the territory

Beneficiaries: Municipalities

Financial Instruments: European Regional Development Fund

Type of project(s): Renewable energy

Sector(s):

Scope: Photovoltaic for private sector

Beneficiaries: Municipalities

Financial Instruments: Tax deduction

Type of project(s): EE others

Sector(s): Industry

Scope: Energy efficiency investments

Beneficiaries: Municipalities

Financial Instruments: White certificates

Description of the proposed financial solution(s) to be launched by the regional authority:

Type of project(s): EE buildings

Sector(s): Municipal buildings – Tertiary buildings – Domestic buildings

Scope: European project to improve energy efficiency and the use of renewable for buildings

Beneficiaries: Municipalities and Regions

Financial Instruments: Horizon 2020

Type of project(s): EE buildings

Sector(s): Municipal buildings – Tertiary buildings – Domestic buildings

Scope: European project to improve energy efficiency and the use of renewable for buildings

Beneficiaries: Municipalities and Regions

Financial Instruments: Assistenza europea per l'energia locale (ELENA)

Type of project(s): EE Transport

Sector(s): Transport

Scope: Improve the installation of electric car charger among the territory

Beneficiaries: Municipalities and Region

Financial Instruments: Crowd-funding

Type of project(s): Renewable energy

Sector(s):

Scope: mini hydro power plants

Beneficiaries: Municipalities and Region

Financial Instruments: Green certificates

Type of project(s): Renewable energy

Sector(s): Transport

Scope: Improve the installation of electric car charger among the territory

Beneficiaries: Municipalities and Region

Financial Instruments: Crowd-funding

4.2 ANDALUSIA REGION - SPAIN

Context of the qualitative assessment in the region

- Lessons learnt from the implementation task 4.3

From the first Regional workshop:

1. In a large region such as Andalusia (87.268 km²) the role of provincial governments is quite important. Granada’s Energy Agency is developing and participating in interesting projects to support the municipalities, such as:
 - Energy audits for public buildings
 - Biogas landfill recovery and biomass as a chance for fossil fuels in Granada province
 - District heating pilot project of the municipality of La Zubia
 - Provincial Adaptation Plan to climate change of Granada region in progress
 - GRAMAS network: supporting municipalities on energy consumption
2. There is an important labour of dissemination of results and actions between citizens and children at schools.
3. New concept “adaptive management”: adapt to conserve, making an active management not leaving species in a natural management, to ensure continuity of the species.
4. The New Covenant is a big challenge with the adaptation part. Not many regions and countries are prepared to include it therefore knowledge and support materials are needed.
5. The main difficulty of small municipalities (<15.000 inhab) is financing. In Andalusia, small municipalities represent 86% of total municipalities and 26% of population.

From the second Regional workshop:

1. Establishment of a collaborative network between private stakeholders and public energy authorities is ongoing by FAMP. It is called REDEMA.
2. Next regional strategy for energy will focus on citizens as centre of the energy system.
3. Value of self-consumption, training citizens on energy issues and the collective management of energy.
4. There are difficulties in access to certain energy data, its digitization and level of disaggregation.
5. It is needed to review certain tools that have already been detected are susceptible to improvement, such as the national energy certification programs for buildings.
6. It is necessary to train technicians at the city council for a better energy management at public buildings and equipment. A figure such as “municipal energy manager” could be also a good measure.

7. Value of joint actions on a large scale, which encompasses development implementation management and monitoring.
 8. Creation of an online catalogue of suppliers, where companies that meet criteria for green purchases in electric vehicles, public lighting, energy supply can be located.
- Description of the trend as regards the energy projects included in the Action Plans (task 5.3)

Energy measures of Action Plans are mainly focused on:

- Advisory municipal services to citizens for reducing the energy consumption and optimise the energy bill.
 - Continuous awareness campaigns on energy consumption and energy efficiency.
 - To contract green electricity or 100% renewable electricity supply for municipal buildings and equipment.
 - Installation of photovoltaic panels in municipal buildings.
 - To improve the envelope of public buildings.
 - Investments in cogeneration systems.
 - Installation of biomass boilers in sports centres and schools.
 - Implantation of teleprocessing in municipal buildings and lighting.
 - Adaptation of municipal buildings to accommodate infrastructures of charging points for electric vehicles.
 - Construction of renewable energy plants, such as solar photovoltaic plants.
- Strategic measures identified in the regional energy vision (task 5.4)

Sector	Strategic measure	Specific measure
Residential sector	Reduce the energy consumption of the buildings mainly with the implementation of energy efficiency interventions in the building envelop.	Energy efficiency interventions in the building envelop
		Promotion of NG
	Increase the use of RES for electricity production due to the considerably high electricity consumption in the buildings.	Promotion of solar thermal
Promotion of photovoltaic solar energy		
	Increase the use of RES for heating and cooling in the buildings.	Promotion of solar thermal
Transport sector	Reduce the consumption of diesel and gasoline in transport sector with the implementation of energy efficiency interventions or the promotion of more	Measures for more efficient use of means of transport
		Measures for renewal of existing fleet of cars: Promotion of NG vehicles

Sector	Strategic measure	Specific measure
	environmentally friendly fuels such as LPG or natural gas.	Measures for renewal of existing fleet of cars: Promotion of electricity cars
		Measures for renewal of existing fleet of cars: Reduce n. diesel cars
	Increase penetration of biofuels in transport sector.	
Tertiary sector	Reduce the energy consumption of the buildings mainly with the implementation of energy efficiency interventions in the building envelop.	Energy efficiency interventions in the building envelop
		Promotion of NG
		Promotion of heat pumps
Agricultural and fisheries	Reduce the consumption of diesel in agriculture, forestry and fisheries with the implementation of energy efficiency interventions or the promotion of a more environmentally friendly fuels such as LPG or natural gas.	Promotion of a more environmentally friendly fuels: NG
		Promotion of a more environmentally friendly fuels: LGP

Major Outcomes of the qualitative assessment:

- Presentation of the qualitative assessment:

The main type of projects are for energy efficiency in buildings but also transport. The ratio of renewal housing for energy efficiency is still low at UE and changes in the Energy Performance Building Directive, EPBD, have been done last 2018. This is going to drive and accelerate housing renewal which is an objective for 2030. Also, energy efficient transport is promoted by increasing electric cars and their necessary supporting infrastructure in cities.

Other main type is Renewable Energy as the national government aspires to reach by 2030 a 74% in power generation from the current 38%.

Sectors where efforts are focused are:

 - Municipal, residential and tertiary (non municipal) buildings
 - Public lighting
 - Public, private and commercial transport
- Description of the most common barriers and opportunities:

The most common barrier identified on the assessment is Timing: funds arrive in different period for different actions while a combination of interventions could reduce the cost and improve the effectiveness.

The main opportunity merged is Regulatory Context, as it is marked how better known funds are transferred from national to regional agencies and there are annual programmes about how and when final users can apply for.

Previous Experience is another barrier due to the lack of knowledge and experience on how to apply and use the financial instruments, mainly for municipal level; this also appears as an opportunity in few financing tools but is more important as barrier.

Institutional Context merge as the second opportunity as there is a structure for apply and distribute the funds received, mainly for UE funds. It appears also as a barrier for the most innovative types of financial instrument due to a lack of knowledge and expertise.

Also, for the elaboration and implementation of SECAP in the last LEB meeting, municipalities identified the following Barriers & Opportunities:

Barriers

- ✓ Access to financing instruments for proposed measures
- ✓ Lack of specialised HHRR at city council and Lack of knowledge for elaborate SECAPs: energy data, emission factors, energy supply.
- ✓ Complicated information to be handled and scatter of data
- ✓ Lack of knowledge for elaborate SECAPs: energy data, emission factors, energy supply
- ✓ Citizens awareness and encouragement
- ✓ Better cooperation between municipal departments
- ✓ SECAP template is not easy to be used and it has some mistakes (Spanish version)

Opportunities

- ✓ Climatic resilience
 - ✓ To be able to also implement a circular economy system
 - ✓ Employment
 - ✓ Quality of life and health
 - ✓ Improvement of infrastructures
 - ✓ Building capacity of municipal staff
 - ✓ Attraction of new interventions and green energy suppliers
 - ✓ To change to a Smart City
 - ✓ Making awareness
- Presentation of the most promising financial mechanisms/instruments:
 - European Funding Programme: Territorial Cooperation

- Project Development Assistance: European Local Energy Assistance (ELENA) & Horizon 2020 Project Development Assistance (PDA)
- Alternative Financing Schemes: Citizen Cooperatives

It is also important to highlight the municipal suggestions collected during the 8th LEB meeting (15th May):

- ✓ The ideal financial tool would include co-financing from different entities (local, provincial, regional, national and European) and support to municipalities to access to loans.
- ✓ Loans at zero interest for measures of mitigation and resilience to climate change, simple to use and accessible to small municipalities.
- ✓ Co-financing with private agents.
- ✓ Non-returnable funds for investments that generate positive impacts or reduce emissions without generating direct economic flows.
- ✓ Returnable funds to finance investments that generate savings in spending and/or additional incomes for the municipality.
- ✓ Public-private fund for "renove plan" actions.
- ✓ Specific regional budget for those municipalities joined to the CoM, to co-finance the SECAPs measures.
- ✓ Partnership of municipalities joined to CoM to access to EU funds, solving the barrier of small population or investment for accessing them.
- ✓ To allow the use of the surplus of municipalities accounts generated by operation of Budget Stability Law in mitigation measures. Also that mitigation actions and resilience focused actions don't count as expenditure in the municipal accounts.
- ✓ Subsidies lines created by national or regional governments.

Description of the proposed financial solution(s) to be used directly by the municipalities:

Type of project(s): energy efficiency in public buildings and sustainable mobility

Sector(s): municipal buildings and municipal fleets, urban mobility

Scope: to establish a partnership between EMPOWERING municipalities to join actions and better direct access to EU funds. The model could be reproduced by others partnership of small municipalities.

Beneficiaries: municipal authorities

Financial Instruments: Loans, at zero interest for measures of mitigation and resilience to climate change;

the surplus in municipal accounts generated by operation of Budget Stability Law could be allowed to be used for mitigation and adaptation measures.

4.3 NORTH-EAST REGION - ROMANIA

Context of the qualitative assessment in the region

- **Lessons learnt from the implementation task 4.3**

The themes of the workshops were chosen to help and support the update of the SEAP strategy with climate adaptation part for the existing signatories of the Covenant of Mayor from North-East region. The evolution of themes was established to present a clear schedule for this municipalities to understand how to elaborate their updated SEAPs.

In order to better understand this process, the old signatories of the CoM have participated to both types of workshops (for SECAP elaboration and SEAP update).

The structure of the workshops (COM Functionality, SEAP update and Public financing solutions for energy and climate measures) created good premises for the old municipalities to elaborate their SEAP update plans and for monitoring the action plan to achieve 2030 goal of Covenant of Mayors.

This approach will help the old municipalities to elaborate integrated development strategies regarding energy efficiency, mobility, land planning, sustainable development etc.

In this programme the participants received all the tools needed for the improvement of their SEAP plans in order to have a holistic vision about the proper evolution of the communities.

The workshops helped the LEB members to identify the areas where intervention is needed and relevant results can be achieved.

- **Description of the trend as regards the energy projects included in the Action Plans (task 5.3).**

Based on the measures that the LEB members envisage within their SECAPs, most of the actions in improving the regional sustainable energy situation will tackle the following sectors:

- Transport
- Municipal buildings
- Residential buildings

A first observation reveals that buildings (in general) add up to 57% of the total actions planned, where the financial focus should be oriented for the next years.

- **Strategic measures identified in the regional energy vision (task 5.4)**

A list of indicative measures based on the regional energy balance obtained based on the SECAPs elaborated by the LEB members.

1. Increase the use of RES for electricity production due to the electricity consumption in the buildings and in the industrial sector – MEDIUM impact.
2. Increase the use of RES for heating and cooling in the buildings – LOW impact.
3. Reduce the energy consumption of the buildings mainly with the implementation of energy efficiency interventions in the building envelop – HIGH impact.
4. Reduce the consumption of diesel and gasoline in private and commercial transport with the implementation of energy efficiency interventions or the promotion of a more environmental-friendly fuels such as LPG or natural gas – HIGH impact.
5. Reduce the consumption of diesel and gasoline in public transport and municipal fleet with the implementation of energy efficiency interventions or the promotion of a more environmental-friendly fuels such as LPG or natural gas – LOW impact.
6. Increase penetration of biofuels in transport sector – MEDIUM impact.

Major Outcomes of the qualitative assessment:

- Presentation of the qualitative assessment:
 - Presentation of the most common of type(s) of projects & sector(s);

Total number of actions [10 finalized SE(C)APs]	Municipal Buildings	Tertiary Buildings	Residential Buildings	Lighting	Transport	RES
632	183	80	100	41	187	41
100%	29%	13%	16%	6%	30%	6%

- Description of the most common barriers and opportunities

Most common barriers in implementing sustainable energy measures have been indicated to be the lack of **funding** and the lack of knowledge when it comes to **designing effective interventions** in this area.

Further discussions (also within the 1st Transnational Seminar) have clarified that funding should not be a problem, *per se*, as the European Commission had an ex-ante conditionality in mandatory EE funding during 2014-2020 MFF. We now know that 2021-2027 MFF will also enable conditions that envisage resources' efficiency. Still, there seems to be problems when it comes to matching the real needs and situation in practice with the objectives and KPI s of funding programmes.

For Romania, the practical example of such barrier is related to the need to renovate residential units, privately owned by citizens (in multi-storey buildings), while the beneficiary of the project should have been the local public authority.

This barrier also revealed that the public authorities do not hold in-house designers of integrated interventions for energy efficiency, but also that could effectively supervise the implementation of such complex investment projects.

As a paradox, we can state that the barriers mentioned above are also the opportunities that could unleash the potential in this area: whenever the minimal conditions of project designing and good collaboration between LPAs and citizens existed (or will exist), the funding source was available.

However, for the transport sector, financial incentives could be more stimulating: although the Environment Ministry carries out for many years the Programme to stimulate the renewal of the vehicles in use in Romania (RABLA for cars), we can see that improvement is still possible and most wanted by the LPAs (at least).

Regarding the residential area, efficient technologies should not be introduced in inefficient buildings. This statement is justified by the current opportunity to improve the situation regarding the energy consumption in residential area enabled by the Environment Ministry that also launched in 2019 the Programme to renew the domestic appliances of households in Romania (RABLA for appliances). Other programmes (“Casa Verde”) of the Ministry envisage installing alternative (RES) heating and energy sources in individual housing units, without considering their initial energy state (proved by energy audits).

- **Presentation of the most promising financial mechanisms/ instruments**

Although the favourite funding mechanisms in North-East region for LPAs remain the grants, in order to effectively address the features of the Romanian situation, there is the need to create funding sources that directly enable the “ultimate generator” of the CO₂ emissions to act in this direction. We appreciate that the programmes launched by the Ministry of Environment in Romania are a good example of this approach, but need to benefit of increased allocations.

Based on the ownership:

- **Grants** should be further provided to the **LPAs** to renovate municipal (publicly-owned) buildings – the current period showed that in the North-East Region of Romania the appetite is superior to the financial allocation - based on the evolution of 2014-2020 MFF, we can conclude that this funding option proved its’ effectiveness. Nonetheless, this kind of success might indicate that this could be an area where financial instruments might be needed as a solution to supplement the funds, but with a careful approach of the target group and of the reimbursable weigh, so that we do not obtain the opposite effect (i.e. reducing the investments);
- Related to private owners (both citizens and companies) **grants** are also a good option when discussing about **individual** buildings or investments.

- However, when discussing about **multi-apartment buildings** and, consequently, multiple owners, in order to decide upon the feasibility of any financial instrument related to the privately-owned residential building stock in our region, there is the need to determine some indicators, such as (non-exhaustive list):
 - Population and demographic trend
 - Number of multi-apartment blocks (and how many of them still need to be refurbished)
 - Number of apartments
 - % of population that lives in multi-apartment buildings / year of construction
 - Distribution of ownership (% privately owned, % municipal rental stock)
 - The age structure of buildings
 - % of multi-apartment blocks that are served by district and individual heating systems
 - Average energy savings (but also costs) estimated for a single building

On this note, LPAs should act on different and multi-annual action plans:

1. **Tax reductions** for owners that perform energy renovation on their homes (apartments or houses) for 1-3 years;
2. **Tax increases** for owners that do not own efficient homes;
3. Property taxes should function in parallel with funding options available to the citizens, established either by EIB funding schemes or by collaborating with other financial institutions (local ones should be the first option), such as:
 - **Loans;**
 - **Subsidised interest loans;**
 - **Guaranteed loans.**

The main rationale behind medium term interventions should be: encouraging and supporting behaviour change for some time, followed by the punishment of those that do not want to change theirs, while still offering the financial aid needed for them, as well (equal treatment).

Description of the proposed financial solution(s) to be used directly by the municipalities:

Type of project(s): Energy Efficiency, Renewable Energy Sources

Sector(s): Residential buildings

Scope: loans for multi-apartment building owners to reduce energy consumption and increase energy efficiency of their homes

Beneficiaries: homeowners and associations of apartment owners of buildings

Financial Instruments: Loans, Grants, Guarantees (the dimension of the aid should be indicated by the provisional analysis – costs of renovation/unit)

Description of the proposed financial solution(s) to be launched by the regional authority:

Type of project(s): Energy Efficiency, Renewable Energy Sources, Heating and Cooling, Deep Renovation, Smart Buildings

Sector(s): Municipal and tertiary buildings

Scope: achieve substantial financial savings, improve the energy performance of the publicly-owned buildings and reduce their CO2 footprint

Beneficiaries: LPAs, Municipal utilities companies (acting or with potential to act as ESCOs), other public actors (schools, hospitals, universities, museums etc.)

Financial Instruments: PDA (grants), EPC (loans)

4.4 ISTRIA REGION - CROATIA

Context of the qualitative assessment in the region

- Lessons learnt from the implementation task 4.3

The themes of the workshops were chosen in order to secure efficient and effective aim to improve the performance of public spending in energy sustainability in general. Regional representatives have come to know how to attract public and private investments, exploring alternative means of financing energy projects and measures and enhanced their knowledge in innovative funding schemes in order to secure more efficient use of public funds (financing Concepts, Public-Private Partnerships, Revolving funds).

There were difficulties in access to certain energy data, therefore it was needed to review certain tools that have already been detected are susceptible to improvement, such as the national energy certification programs for buildings.

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.

- Description of the trend as regards the energy projects included in the Action Plans (task 5.3).

Key focus mainly on buildings and transport sector, with aims to reduce energy consumption and decrease CO2 emissions:

- Increase the use of RES for heating and cooling in the buildings.
 - Continuous awareness campaigns on energy consumption and energy efficiency
 - Installation of photovoltaic panels in municipal buildings
 - Installation of biomass boilers in schools
 - Substitute heating oil and other fossil fuels in the buildings with more environmental friendly fuels such as LPG or natural gas.
 - Reduce the energy consumption of the buildings mainly with the implementation of energy efficiency interventions in the building envelop.
 - Reduce the consumption of diesel and gasoline in private and commercial transport including municipal vehicles with the implementation of energy efficiency interventions or the promotion of a more environmental-friendly fuels such as LPG or natural gas
 - Adaptation of municipal buildings to accommodate infrastructures of charging points for electric vehicles
 - Increase penetration of biofuels in transport sector.
- Strategic measures identified in the regional energy vision (task 5.4)
 1. Increase the use of RES for electricity production due to the high electricity consumption in the buildings – HIGH impact.
 2. Increase the use of RES for heating and cooling in the buildings – MEDIUM impact.
 3. Substitute heating oil and other fossil fuels in the buildings with more environmentally friendly fuels such as LPG or natural gas – HIGH impact.
 4. Reduce the energy consumption of the buildings mainly with the implementation of energy efficiency interventions in the building envelop – HIGH impact.
 5. Reduce the consumption of diesel and gasoline in private and commercial transport including municipal vehicles with the implementation of energy efficiency interventions or the promotion of a more environmental-friendly fuels such as LPG or natural gas – HIGH impact.
 6. Increase penetration of biofuels in transport sector – LOW impact.

Major Outcomes of the qualitative assessment:

- Presentation of the qualitative assessment:
 - Presentation of the most common of type(s) of projects & sector(s);

Key most common projects & sectors selected by the municipalities focus mainly on buildings and transport sector, with aims to reduce energy consumption and decrease CO2 emissions and can be grouped as follows:

- a) Increase the use of RES for electricity production due to the high electricity consumption in the buildings.
- b) Increase the use of RES for heating and cooling in the buildings.
- c) Substitute heating oil and other fossil fuels in the buildings with more environmental friendly fuels such as LPG or natural gas.
- d) Reduce the energy consumption of the buildings mainly with the implementation of energy efficiency interventions in the building envelop.
- e) Reduce the consumption of diesel and gasoline in private and commercial transport including municipal vehicles with the implementation of energy efficiency interventions or the promotion of a more environmental-friendly fuels such as LPG or natural gas.
- f) Increase penetration of biofuels in transport sector

- Description of the most common barriers and opportunities;

Timing is the most common barrier identified on the assessment because funds arrive in different period for different actions while a combination of interventions could reduce the cost and improve the effectiveness.

The main opportunity merged is previous experience due to the lack of knowledge of previous experience on how to apply and use the financial instruments, mainly for municipal level.

Institutional Context merge as the second opportunity as there is a structure for apply and distribute the funds received, mainly for UE funds. It appears also as a barrier for the most innovative types of financial instrument due to a lack of knowledge and expertise.

Major obstacles identified by the municipalities during the SECAP drafting were as follows:

- a) lack of human resources
- b) unavailability of data
- c) data exactness and credibility

While opportunities identified:

- a) able to also implement a circular economy system
- b) public awareness of the opportunities offered by a more intelligent use of energy
- c) financing opportunities and funding initiatives improvement of infrastructures
- d) attraction of new interventions and green energy suppliers
- e) change to a Smart City
- f) opportunities for reaching the local authority’s greenhouse gases
- g) opportunities to make cities more climate-resilient
- h) provide long-term political support to the SECAP process
- i) make sure that the energy and climate policy is integrated in the everyday life of the local administration
- j) networking with other CoM signatories, exchanging experience and best practices, establishing synergies and encouraging their involvement in the Covenant of Mayors
 - Presentation of the most promising financial mechanisms/ instruments;

The innovative financial instruments 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 planned to support Industry low-carbon transition

- Istrian County budget

- Environmental Protection and Energy Efficiency Fund (cro. Fond za zaštitu okoliša i energetska učinkovitost – FZOEU)

- The Croatian Bank for Reconstruction and Development (cro. Hrvatska banka za obnovu i razvitak - HABOR) has special lines for lending projects for environmental protection, energy efficiency and renewable energy sources.

- Various commercial banks have available green lending lines. One of the most significant is the credit line of the European Bank for Reconstruction and Development, which, by 2013, offers green loans to various companies and units of local government through various commercial banks. These loans will make it easier to invest in energy efficiency and renewable energy projects. This credit line is the result of the EBRD project implemented in co-operation with the European Union under the name of the Western Balkans Sustainable Energy Financing Facility II

(WeBSEFF II). It is open to the public and private sector if they want to improve the efficiency of energy use and / or invest in renewable energy production facilities.

- EU funds - approximately three billion euros are available to the Republic of Croatia within the Operational Program for Competitiveness and Cohesion 2014-2020, through five competitiveness priorities: research and innovation, ICT, small and medium-sized enterprises, low carbon economy and education.

- Public Private Partnership - The basic foundation of a public-private partnership is the use of expertise in the private sector and their resources, in order to contribute to the infrastructure and to the provision of public sector service activities. In this way, the public sector triggers private sector activity, taking into account public interest and quality control.

- The ESCO (Energy Service Company) model includes development, implementation and financing of projects to improve energy efficiency and reduce operating and maintenance costs. The goal of each project is to reduce energy costs and maintenance by installing more efficient equipment and by optimizing energy systems. Therefore, ensuring the repayment of investments through realized savings over a period of several years depends on the client and the project.

Public Financial Agencies and Private Financial Intermediaries involved for Energy investments

- The Croatian Bank for Reconstruction and Development (cro. Hrvatska banka za obnovu i razvitak - HABOR) has special lines for lending projects for environmental protection, energy efficiency and renewable energy sources.

- Various commercial banks have available green lending lines. One of the most significant is the credit line of the European Bank for Reconstruction and Development, which, by 2013, offers green loans to various companies and units of local government through various commercial banks. These loans will make it easier to invest in energy efficiency and renewable energy projects. This credit line is the result of the EBRD project implemented in co-operation with the European Union under the name of the Western Balkans Sustainable Energy Financing Facility II (WeBSEFF II). It is open to the public and private sector if they want to improve the efficiency of energy use and / or invest in renewable energy production facilities.

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.

Description of the proposed financial solution(s) to be used directly by the municipalities:

Type of project(s): energy efficiency, renewable energy sources

Sector(s): Residential buildings

Scope: co-financing for building owners to reduce energy consumption and increase energy efficiency of their homes

Beneficiaries: associations of owners of buildings

Financial Instruments: loans, grants, guarantees

Description of the proposed financial solution(s) to be launched by the regional authority:

Type of project(s): Energy Efficiency, Renewable Energy Sources, Heating and Cooling, Deep Renovation, Smart Buildings

Sector(s): Municipal buildings

Scope: achieve financial savings, improve the energy performance of the public buildings and reduce their CO₂, thought establishment of An Innovative Climate Change Adaptation Platform, the platform allows cities to create profiles and for each municipality it is possible to monitor the degree of realization of a particular measure (the data entered by the owner of the profile) and the corresponding cost estimate where it is available (finance, energy, Co₂ emissions).

Beneficiaries: Public authorities in the region

Financial Instruments: PDA (grants), EPC (loans)

4.5 REGION OF CENTRAL MACEDONIA - GREECE

Context of the qualitative assessment in the region

During a relevant consultation held in the Region of Central Macedonia in the framework of the EMPOWERING project (HORIZON 2020), with the participation of service and elected representatives, as well as the technical consultants of the project, taking into account the major outcomes derived from task 4.3, task 5.3 & task 5.4, emerged the need for specialized support for the secondary (manufacturing) sector in order to increase energy efficiency with the ultimate goal of almost zero energy balance greenhouse gas emissions, and to encourage greenhouse gas innovation in the field of sustainable energy.

This support comes from a new Financial Instrument for Energy in Manufacturing (FIEM), which will work in conjunction with other financial instruments and tools which already assist (directly or indirectly) the companies of secondary sector of RCM for implementing investments in the field of Sustainable Energy. The individual objectives of the tool will be:

1. Promoting interventions to improve the energy efficiency of infrastructure of industrial plants and production lines.
2. Production of energy by exploitation of RES and replacing fossil fuels with renewable or alternatives resources.
3. The introduction of innovations and the encouragement of the production of branch products that are related to energy sector.

Specific steps need to be taken to develop the new financial instrument preparation at an organizational level, which will lead to its construction and operation.

More specific:

Preparation at organizational level

It is recommended to set up the Preparatory Committee of the FIEM, which will be operating within the EMPOWERING project until its completion and then independently.

This Committee will have a think tank role and an executive role by taking initiatives to initially device a plan and then to launch their implementation.

The Committee will be composed of members of the relative departments, such as the Directorate of Support Innovation and Entrepreneurship (coordinator), Directorate of Strategic Planning and Programming, and the Directorate of Environment, Industry, Energy, and Physical Resources of RCM, as well as the Management Authority of the Operational Program of RCM.

The role of the Preparatory Committee will be completed when the FIEM begins and will be replaced by the FIEM Monitoring Committee.

Development of the New Financial Instrument

This stage includes the development of Business Plan (BP) and the application of the 'Guide to Implementation' of FIEM.

To this end, the Preparation Committee will draw up, at first instance, specifications for Business Planning. Indicatively, the FIEM Business Plan will contain at least the following capitals:

IMPRESSION OF THE EXISTING SITUATION: Using data from the Directorate Environment, Industry, Energy and Natural Resources of RCM and at the same time from the field of sampling and statistical analysis companies of the manufacturing sector will be recorded and stamped, with a focus on their installed electrical power and other energy consumptions (thermal, motion, others). Moreover, there be focus on energy supply (PPCs/Other Electricity Suppliers, Conventional and Alternative Minerals fuels, RES) and on the annual consumption of electricity and fuel.

Additionally, RCM may request companies of manufacturing sector to submit quantified proposals with respect to their needs in the above areas. The proposals that will be gathered will facilitate and direct the planning and give an indication of the funds, which will be required for the function of the FIEM.

SWOT ANALYSIS AND SPECIFICATION OF OBJECTIVES: The results of the above recording and analysis will highlight the strong and weak elements of the energy profile of the Manufacturing Sector of RCM, as well as the opportunities and the potential threats.

Analysis of strong and diseased elements, opportunities and threats will enable specialization of the aforementioned objectives (energy efficiency, energy from RES, innovation) and their qualitative linking with specific indicators (Indicative Suggestion).

ACTION PLAN: The Action Plan will be organized by "Priority Axes" which will correspond and serve the individual objectives as specified in the previous chapter. In this context there may be separate axes for energy savings in industrial buildings and production lines, or by type utilized RES (solar, wind, biomass, electric fluids, biofuels, geothermal energy etc.), or by field of innovation for energy (new products, production processes), or even for carbon dioxide capture (in lime kilns, cement factories, thermal power plants and other large GHG producers).

However, due to the proposed method of implementation through the Renewable Loans Fund, which will constantly (depending on the availability of finance resources) have open calls, based on Priority axes, it is not necessary the specialization of the Action Plan into "Implementing Measures".

The Action Plan will be completed with indicative budget tables per axis priorities, the amounts of which will be estimated on the basis of the analysis of the foregoing situation, as well on a

timetable with the planned funding per year. The timeline for the implementation of FIEM will be - first - until 2027.

MONITORING INDICATORS: As above mentioned, the qualitative input of "Monitoring Indices of FIEM" will be the result of SWOT analysis. The indicators may be separated in two categories:

1. Output indicators, which will refer to the immediate and tangible results of an intervention. For example, square meters of upgraded energy industrial buildings, number of production lines or auxiliary systems upgraded, square meters of photovoltaics installed, a number of new products Sustainable Energy Sector, number of innovative processes, etc.
2. Results indicators, which will yield the results of an intervention. For example, "Reduced energy per year" (in kWh), "Restriction GHG emissions" (tCO₂e), number of new patents etc.

ENSURING RESOURCES: The required financial resources can be drawn from existing financial instruments (see Chapter A), such as the European Strategic Fund Investments (ESFI), EIB Municipal Loans (EIB) and the Financial Mechanism Physical Capital (NCFF) or other appropriate future tools..

In addition, contribution of RCM, with resources from the NSRF should be considered from the next programming period 2021-2027.

Finally, raising funds from Technical Assistance funds to the final beneficiaries as well to the FIEM, can be done by exploiting corresponding financial instruments, such as the European Energy Efficiency Fund (EEEF), European Local Area Network Energy Assistance (ELENA), Horizon 2020 Project Development Assistance (PDA) or Joint Assistance to Support Projects in European Regions (JASPERS).

At this point, it is worth underlining, the possibility of obtaining free funding by JASPERS, which provides free assistance to local authorities and promoters of projects for any stage of the project cycle, from the early ones stages of its design until the submission of the final application for funding.

IMPLEMENTATION: For the implementation of the FIEM it is proposed to set up a specific Fund according to standards of the JESSICA program, the creation and operation of which will then be entrusted, by a competitive procedure, in a banking institution. This Fund will act as a Renewable Facility Loans (Revolving Loans) and will provide the enterprises, funding for rewarding interventions to improve their energy efficiency, replacement of fossil fuels by RES and production innovation in the energy sector. Loans will be provided with terms like very low interest rates compared to commercial loans, grace periods to the start of interest rates, long repayment periods, and guarantees.

Funding and supervision of the Fund by RCM will be through the Monitoring Commission of FIEM.

MONITORING THE IMPLEMENTATION

The exact process, structure and coordination between the involved actors and will be responsible for putting into place the new Financial Instrument for Energy in Manufacturing (FIEM), will be determined in the framework of Business Planning, based on directions already set in the ‘Implementation’ section.

The above, as well as the way of supporting the secondary sector companies for making investments in the field of sustainable energy and in general the operation of the financial instrument, will be described in "Implementation Guide", the writing of which will take place immediately after the completion and approval of its Business Plan.

Major Outcomes of the qualitative assessment:

The results of the qualitative evaluation performed concern:

- Presentation of the most common of type(s) of projects & sector(s);
- Description of the most common barriers and opportunities;
- Presentation of the most promising financial mechanisms/ instruments;

The most common types of projects for sectors of “Municipal buildings”, “Tertiary Sector” and “Residential buildings” are:

- Interventions in building envelope
- Promotion of NG

The most common types of projects for sectors of “Public lighting” is:

- Installation of high efficient systems

The most common types of projects for transport sectors are:

- Promotion of NG vehicles
- Promotion of more efficient vehicles
- Promotion of electricity vehicles

The most common types of projects for local electricity production is:

- Energy production from Wind parks
- Energy production from Photovoltaic stations

The most common barriers are:

Timing (funds arrive in different period for different actions) for:

- Public sector using European Regional Development Fund

Previous experience (lack of knowledge and experience on how to use innovative financial instruments improve the use of few financial tools available) for:

- European Local Energy Assistance (ELENA)

Targeting (funds that are not specific for energy efficiency and GHG emissions reduction) for

- European Regional Development Fund

Regulatory context (the law and the standards increase the difficulties in actions for energy efficiency and the use of renewable energy)

- EIB – Municipal Framework Loans EPC (difficulty to apply according to the laws)

The most common effectiveness opportunities are the follows:

- Previous experience, regulatory context and institutional context for: European Regional Development Fund
- Regulatory context, institutional context and Timing for: European Local Energy Assistance (ELENA)

Description of the proposed financial solution(s) to be used directly by the municipalities:

Type of project(s): EE buildings

Sector(s): Municipal buildings

Scope: Interventions in building envelope, Promotion of NG

Beneficiaries: Municipalities

Financial Instruments: European Regional Development Fund

Type of project(s): EE buildings

Sector(s): Tertiary buildings

Scope: Interventions in building envelope, Promotion of NG, Promotion of heat pumps

Beneficiaries: Municipalities

Financial Instruments: European Regional Development Fund

Type of project(s): EE buildings

Sector(s): Residential buildings

Scope: Interventions in building envelope, Promotion of NG, Promotion of heat pumps

Beneficiaries: Municipalities

Financial Instruments: European Regional Development Fund

Type of project(s): EE buildings

Sector(s): Residential buildings

Scope: Interventions in building envelope, Promotion of NG, Promotion of heat pumps

Beneficiaries: Municipalities

Financial Instruments: URBACT

Type of project(s): EE transport

Sector(s): Municipal fleet

Scope: Promotion of NG vehicles, Promotion of more efficient vehicles, Promotion of electricity vehicles

Beneficiaries: Municipalities

Financial Instruments: European Regional Development Fund

Type of project(s): EE transport

Sector(s): Private and commercial transport

Scope: Promotion of NG vehicles, Promotion of more efficient vehicles, Promotion of electricity vehicles

Beneficiaries: Municipalities and Regions

Financial Instruments: Cohesion Fund

Type of project(s): EE transport

Sector(s): Public transport

Scope: Promotion of NG vehicles, Promotion of more efficient vehicles, Promotion of electricity vehicles

Beneficiaries: Municipalities and Regions

Financial Instruments: Cohesion Fund

Type of project(s): EE transport

Sector(s): Private and Commercial transport

Scope: Promotion of NG vehicles, Promotion of more efficient vehicles, Promotion of electricity vehicles

Beneficiaries: Municipalities and Regions

Financial Instruments: Horizon 2020 (Horizon Europe)

Type of project(s): EE Public lighting

Sector(s): Public lighting

Scope: Renewal of public lighting systems

Beneficiaries: Municipalities

Financial Instruments: European Local Energy Assistance (ELENA)

Type of project(s): EE Public lighting

Sector(s): Public lighting

Scope: Renewal of public lighting systems

Beneficiaries: Municipalities and Regions

Financial Instruments: Energy Performance Contracting

Type of project(s): Renewable energy

Sector(s):

Scope: Energy efficiency investments

Beneficiaries: Municipalities

Financial Instruments: European Local Energy Assistance (ELENA)

Description of the proposed financial solution(s) to be launched by the regional authority:

Type of project(s): EE buildings

Sector(s): Residential buildings

Scope: Interventions in building envelope, Promotion of NG, Promotion of heat pumps

Beneficiaries: Municipalities and Regions

Financial Instruments: URBACT

Type of project(s): EE buildings

Sector(s): Municipal buildings

Scope: Interventions in building envelope, Promotion of NG, Promotion of heat pumps

Beneficiaries: Municipalities and Regions

Financial Instruments: Energy Performance Contracting

Type of project(s): EE Transport

Sector(s): Public Transport

Scope: Promotion of NG vehicles, Promotion of more efficient vehicles, Promotion of electricity vehicles

Beneficiaries: Municipalities and Regions

Financial Instruments: European Local Energy Assistance (ELENA)

Type of project(s): Renewable Energy

Sector(s): Industry

Scope: Photovoltaic stations, Wind Parks

Beneficiaries: Municipalities and Regions

Financial Instruments: Citizen Cooperatives

Type of project(s): Renewable Energy

Sector(s): Industry

Scope: Photovoltaic stations, Wind Parks

Beneficiaries: Regions

Financial Instruments: European Regional Development Fund

4.6 REGION OF NORTH-HUNGARY

Context of the qualitative assessment in the region

- **Lessons learnt from the implementation task 4.3**

In Hungary for public authorities public funds are available for energy efficiency through the Environment and Energy Efficiency Operational Programme and Territorial and Settlement Development Operational Programme financed by ERDF and ESF. These grants are accessible even for smaller municipalities and no co-financing is required. Apart from these small municipalities are still facing major challenges when it comes to financing their energy efficiency and renewable energy production measures. During the transnational exchange and capacity building programme several financial instruments and solutions were identified that could help municipalities implement energy efficiency projects. From the existing financial instruments and options –based on the conclusions and the outcome of the capacity building programme, the drafted regional energy vision and the planned measures and priorities included in the Action Plans– the most suitable and appropriate tools supposed to be found that could potentially be applied by the municipalities for financing energy efficiency in the region.

Prior to the regional workshops BORA94 team –together with the support of LENERG Energy Agency and project manager of Energy Cities– identified innovative financing solutions that could be applied by the local authorities focusing on the implementation of the specific measures within the SECAPs. In the frame of workshops these selected innovative financial instruments were introduced and discussed in order to provide guidance on the options and highlight the benefits they deliver. It was also important to identify the barriers and offer solutions to overcome them. During the workshops the following financial instruments and inspirational examples were presented, analysed and discussed:

- ✓ Citizens cooperatives
- ✓ Crowd-funding
- ✓ EPC
- ✓ ESCO
- ✓ Revolving Loan Funds
- ✓ Project Development Assistance
- ✓ HORIZON 2020
- ✓ LIFE
- ✓ Territorial Cooperation
- ✓ The example of:
 - progRESs HEAT (Brasso)
 - LIFE360
 - CYCLEWALK

- energy community in Hungary (Bükk-Mak Leader)

The energy projects implemented by the municipalities are financed by EU funds. Significant amount of money from the Cohesion Fund is allocated to energy efficiency in buildings. For energy efficient renovation of public buildings almost exclusively these non-refundable grants are used. Governmental incentives for energy efficiency is missing. Loans are really hard to be obtained and financed. In some cases financing provided by ESCOs was used, especially in cases where the payback period is relatively short, the technology is simple and the project sizes is smaller (eg. modernisation of public lighting). Due to the fact that legislative framework is missing and as even some of the participants had bad experience previously, the trust in ESCOs is completely missing. Other innovative financial instruments or solutions are not applied and really rare in the region. There is no specific examples of public-private financing partnerships and crowd-funding.

Another fact that needs to be mentioned related to the building stock of the municipalities: the ownership of specific buildings (schools, hospitals) belongs to the municipality, but the buildings are operated by the state as the result of centralisation taken place. This means that in case if energy efficiency investments are implemented by the municipality, the results and benefits are realised by the operator (state). So it is another problem that it is not in the interest of the municipality to finance such projects.

In case of the residential buildings “Warmth of Home” Programme is in place but the available resources are quite limited. Long term loans are provided by the Hungarian Development Bank for renovation of residential buildings.

In the case of the private sector EPC is used and Corporate Tax Benefit Incentives are put in place in case a company implements energy efficiency investments (the tax benefit can be 30% of the eligible costs of the investment).

- **Description of the trend as regards the energy projects included in the Action Plans (task 5.3).**

Taking into consideration the energy projects included in the Action Plans it can be seen the main focus is on BUILDINGS, TRANSPORT, LOCAL ELECTRICITY GENERATION

- Building retrofits (municipal and residential)
- Local electricity generation (photovoltaics)
- Low CO₂ emission vehicles
- **Strategic measures identified in the regional energy vision (task 5.4)**
 - Increase considerably the use of RES for electricity production due to the relatively significant electricity consumption – MEDIUM impact.

- Minimize the consumption of coal (lignite) in the buildings of the residential sector probably through its substitution with RES (including heat pumps, excluding biomass) – LOW impact.
- Increase the use of RES for heating and cooling in the buildings (including heat pumps, PVs, excluding biomass) – LOW impact.
- Reduce the energy consumption of the buildings mainly with the implementation of energy efficiency interventions in the building envelop – HIGH impact.
- Reduce the consumption of diesel and gasoline in private and commercial transport with the implementation of energy efficiency interventions or the promotion of a more environmental-friendly fuels such as LPG or natural gas (and electricity under the precondition that the penetration of RES will be increased) – HIGH impact.
- Reduce the consumption of diesel in public transport with the implementation of energy efficiency interventions or the promotion of a more environmental-friendly fuels such as LPG or natural gas (and electricity under the precondition that the penetration of RES will be increased) – LOW impact.
- Increase penetration of biofuels in transport sector – MEDIUM impact.

Major Outcomes of the qualitative assessment:

- **Presentation of the qualitative assessment:**

On the available funding mechanisms a qualitative assessment was performed in the region (based on the degree of applicability and the degree of effectiveness of the funding mechanism) in order to be able to find the most promising funding options to be taken into consideration during the drafting the model of the financial instrument.

- **Presentation of the most common of type(s) of projects & sector(s);**

The most common types of projects for the sector of “MUNICIPAL BUILDINGS, EQUIPMENT AND FACILITIES” and “PUBLIC LIGHTING” are:

- ✓ Energy renovation of public buildings heated with natural gas (thermal insulation of boundary structures, replacement of doors and windows, building engineering modernization, replacement of boilers)
- ✓ Replacement of public lighting systems with LED lamps

The most common types of projects for sectors of “RESIDENTIAL BUILDINGS”:

- ✓ Switching from natural gas and/or coal-fired residential buildings to firewood
- ✓ Replacement of traditional boilers with new condensing boilers or heat pumps

- ✓ Replacement of doors and windows
- ✓ Solar thermal panels
- ✓ Solar collectors
- ✓ Replacement of low efficiency appliances
- ✓ Creation of a "Residential Energy Advisor Point"

The most common types of projects for “TRANSPORT” sector are:

- ✓ Switch to high efficiency vehicles and/or electric cars

The most common types of projects for local electricity production is:

- ✓ Energy production from photovoltaic systems
 - **The most common barriers are:**
- *Institutional context*
 - lack of knowledge about the mechanism
 - lack of in-house expertise at the municipalities
(examples: Horizon 2020, LIFE, Revolving loan funds)
- *Regulatory context*
 - lack of supporting policies and legislation
 - legislative framework is missing
(example: ESCO, loans)
- *Timing*
 - integrated actions cannot be financed
- *Previous experience*
 - lack of previous experience with a specific instrument
- *Other barriers:*
 - liquidity is missing
 - lack of co-financing
 - lack of stakeholders awareness and engagement
 - long payback periods
 - no trust in ESCOs and banks
- Presentation of the most promising financial mechanisms/ instruments;
- **The most promising opportunities –taking into account applicability and the degree of effectiveness – are the follows:**
 - Cohesion Fund
 - European Regional Development Fund
 - Tax reduction

- Project development assistant

Description of the proposed financial solution(s) to be used directly by the municipalities:

Type of project(s): EE buildings

Sector(s): Municipal buildings

Scope: Retrofitting of municipal buildings

Beneficiaries: Municipalities

Financial Instruments: European Regional Development Fund, Horizon 2020 Project Development Assistance (PDA)

Type of project(s): EE buildings

Sector(s): Residential buildings

Scope: Retrofitting of building envelope and/or technological system for air conditioning and hot domestic water

Beneficiaries: Citizens

Financial Instruments: Loans, European Regional Development Fund

Type of project(s): EE Public lighting

Sector(s): Public lighting

Scope: Retrofitting of public lighting systems

Beneficiaries: Municipalities

Financial Instruments: EPC, Horizon 2020 Project Development Assistance (PDA)

Description of the proposed financial solution(s) to be launched by the regional authority:

Combination of funds and private capital: measures that are financed by ESCOs –insulation, lighting upgrades or boiler upgrades– supposed to be combined with grants coming from the structural funds. (There is the risk if a measure is already implemented financed by private capital, that cannot receive EU funding any more. It would be very important that EU structural funding could be combined with lighting and thermal interventions financed by private capital.)

5 CONCLUSIONS

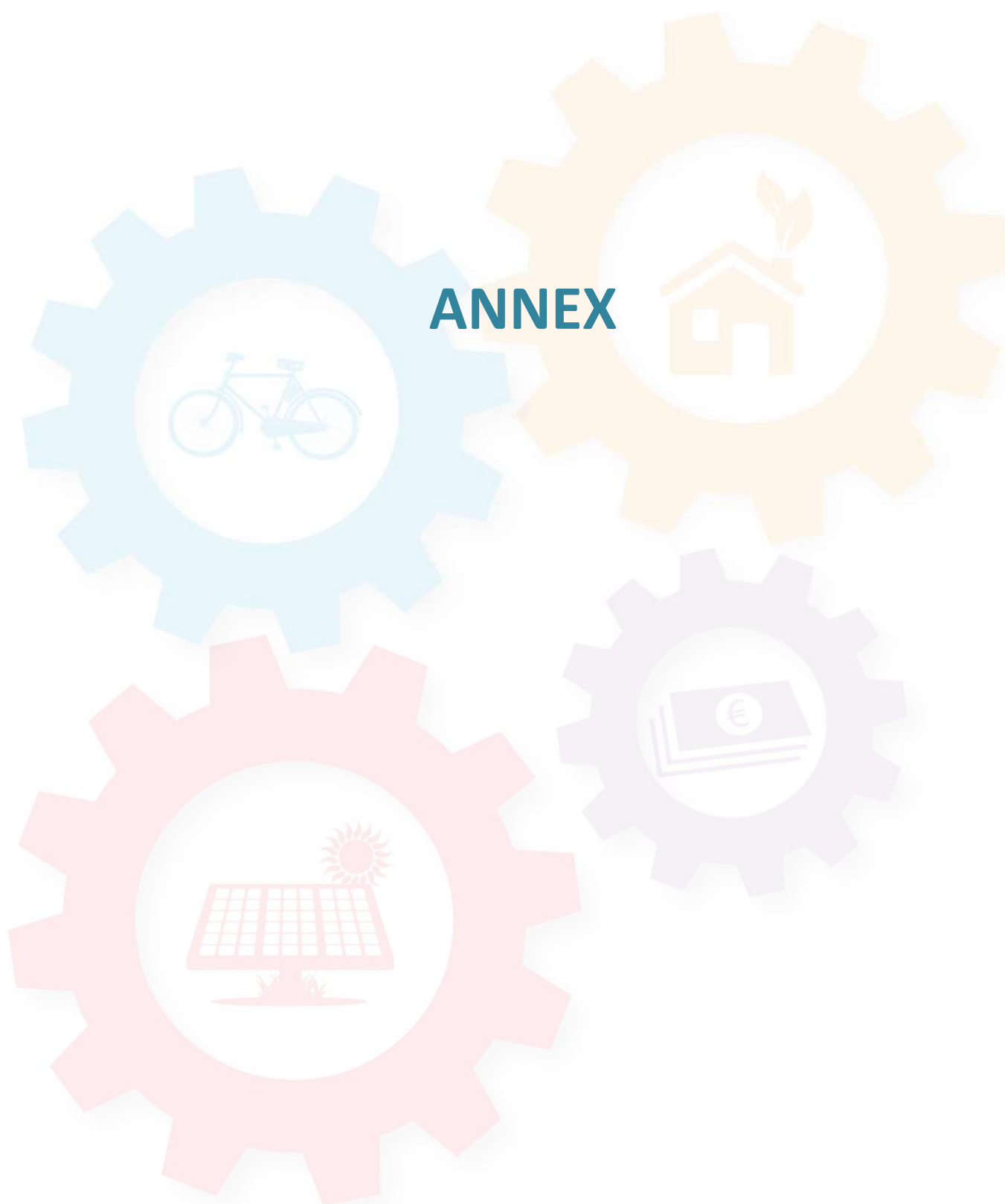
Elaborating a sustainable energy action plan requires an initial great effort from a municipality or a region so that they can form a robust pathway towards energy transition.

Implementing the energy action plan that involves energy efficiency and renewable energy projects mandates that market key players are identified and available financing sources for each one of them are secured.

The European Commission in its recommendations clearly suggests that decarbonizing the economy needs the involvement of private stakeholders so that they can reinforce public financial resources and technical expertise. This blend of capacities paves the way for utilizing innovative financial mechanisms with a clear target of maximizing investment into sustainable energy projects.

EMPOWERING Regional project partners along with regional representatives have eagerly devoted their resources into identifying potential financial mechanisms that can become a viable option for their territories.

ANNEX



ANNEX I

Financial Instruments mapping & matching worksheet for Marche Region, Italy

SF_5.4a_FIs_mapping&matching_v4 svim.xlsx - Excel

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
		Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Opport 1	Opport 2	Opport 3	Opport 4	Opport 5	Type of project	sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
11	European Structural and Investments Fund	European Regional Development Fund	institutional context	regulatory context	timing	targeting	previous experience						EE buildings	Municipal buildings	Municipality	5	4	4.5	
13		European Regional Development Fund	institutional context	regulatory context	timing	targeting	previous experience						EE Public lighting	Public lighting	Municipality	5	4	4.5	
15		European Regional Development Fund	institutional context	regulatory context	timing	targeting	previous experience						EE transport		Municipality	5	4	4.5	
16		European Agricultural Fund for Rural Development	institutional context	regulatory context	timing	targeting	previous experience						EE other	Industry	Municipality	4	2	3	
17		European Maritime and Fisheries Fund	institutional context	regulatory context	timing	previous experience	targeting						Renewable Energy	management, Forestry, etc.	Municipality	3	2	2.5	
18		European Maritime and Fisheries Fund	institutional context	regulatory context	timing	previous experience	targeting						Renewable Energy		Municipality	3	2	2.5	
19																			
20																			
21																			
22																			
23																			
24	European Funding Programme	Horizon 2020 (Horizon Europe)	institutional context	regulatory context	timing	targeting	previous experience						EE buildings	Municipal buildings	Region & Municipality	4	3	3.5	
26		Horizon 2020 (Horizon Europe)	institutional context	regulatory context	timing	targeting	previous experience						EE buildings	Residential buildings	Region & Municipality	3	2	2.5	
27		Territorial Cooperation	institutional context	regulatory context	timing	previous experience	targeting						EE buildings	Municipal buildings	Region & Municipality	2	2	2	
28																			
29																			
30																			
31																			
32																			
33																			
34	Project Development Assistance	Assistenza europea per l'energia locale (ELENA)	institutional context	regulatory context	targeting	previous experience	regulatory context	timing					EE buildings	Municipal buildings	Region & Municipality	2	4	3	
36		Assistenza europea per l'energia locale (ELENA)	institutional context	regulatory context	targeting	previous experience	regulatory context	timing					EE buildings	Residential buildings	Region & Municipality	2	3	2.5	
37		Horizon 2020 Project Development Assistance (PDA)	institutional context	regulatory context	targeting	previous experience	regulatory context	timing					EE buildings	Municipal buildings	Region & Municipality	2	4	3	
38		Horizon 2020 Project Development Assistance (PDA)	institutional context	regulatory context	targeting	previous experience	regulatory context	timing					EE buildings	Residential buildings	Region & Municipality	2	3	2.5	
39		Fondo europeo per l'efficienza energetica (EEEF)	institutional context	regulatory context	targeting	previous experience	institutional context	regulatory context	timing	targeting	previous experience		EE buildings	Municipal buildings	Region & Municipality	2	2	2	
40																			
41																			
42																			
43	Financial Institutions Instruments	EIB - Municipal Framework Loans	targeting					previous experience	regulatory context	timing			EE buildings	Municipal buildings	Region & Municipality	2	2	2	
44																			
45																			
46																			
47																			
48																			
49																			
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SF_5.4a_Fls_mapping&matching_v4.svmm.xlsx - Excel

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
		Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Impact 1	Impact 2	Impact 3	Impact 4	Impact 5	Type of project	sector	Implementation area	level of Applicability	Level of effectiveness	Score	
50																			
51	Alternative Financing Schemes	Energy Performance Contracting	institutional context	timing	targeting			regulatory context	previous experience				EE buildings	Municipal buildings	Municipality	4	4	4	
52		Energy Performance Contracting	institutional context	timing	targeting			regulatory context	previous experience				EE Public lighting	Public lighting	Municipality	4	4	4	
53		Revolving loan funds	timing	targeting				institutional context	regulatory context	previous experience			EE buildings	Municipal buildings	Municipality	2	2	2	
54		Crowdfunding	targeting	timing				institutional context	regulatory context	previous experience			EE transport	Trasporto privato e commerciale	Municipality	2	2	2	
55-58																			#DIV/0!
59																			#DIV/0!
60	Other Instruments/Mechanisms	detrazione fiscale (ECOBONUS)	institutional context	regulatory context	timing	targeting	previous experience						EE buildings	Residential buildings	Municipality	5	5	5	
61		detrazione fiscale (ECOBONUS) con cessione del credito	institutional context	regulatory context	timing	targeting	previous experience						EE buildings	Residential buildings (terziario civile)	Municipality	5	5	5	
62		detrazione fiscale (ECOBONUS)	institutional context	regulatory context	timing	targeting	previous experience						EE buildings	Residential buildings (municipal)	Municipality	5	5	5	
63		Conto termico	institutional context	regulatory context	timing	targeting	previous experience	previous experience					EE buildings	Residential buildings	Municipality	5	5	5	
64		Conto termico	institutional context	regulatory context	timing	targeting	previous experience	previous experience	institutional context				EE buildings	Municipal buildings	Municipality	4	5	4,5	
65		Fondo Nazionale per l'efficienza energetica (Invitalia)	targeting				previous experience	previous experience	institutional context	timing			EE buildings	Municipal buildings	Municipality	2	2	2	
66		Ministero dello sviluppo economico	institutional context	regulatory context	timing	targeting	previous experience	previous experience	institutional context				EE buildings	Municipal buildings	Municipality	4	4	4	
67		CONSP	institutional context	regulatory context	timing	targeting	previous experience	previous experience	targeting				EE buildings	Municipal buildings	Municipality	5	3	4	
68		CONSP	institutional context	regulatory context	timing	targeting	previous experience	previous experience	targeting				EE buildings	Public lighting	Municipality	5	3	4	
69		Certificati bianchi	targeting	previous experience	institutional context	regulatory context	timing	timing					EE Public lighting	Public lighting	Region & Municipality	5	2	3,5	
70	Certificati bianchi	targeting	previous experience	institutional context	regulatory context	timing	timing					EE other	Industry	Municipality	5	3	4		
71	Certificati verdi	targeting	previous experience	institutional context	regulatory context	timing	timing					Renewable Energy		Region & Municipality	4	4	4		
72-74																		#DIV/0!	
75-77																		#DIV/0!	
78-88																			

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ANNEX II

Financial Instruments mapping & matching worksheet for Andalusia, Spain

SF_54a_Fin_mapping&matching_v4_PP2_ING.xlsx - Excel

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
		Type of Financial Instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Barrier 1	Barrier 2	Barrier 3	Barrier 4	Barrier 5	Type of project	Sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
10	Options presented in the funding guide of the CoM																		
11		Cohesion Fund	previous experience	regulatory contest	institutional contest			timing					EE buildings	Residential building	Region	4	4	3,5	
12		Cohesion Fund	previous experience	regulatory contest	institutional contest			timing					EE transport	Private and commx	Region	4	4	3,5	
13		European Agricultural Fund for Rural Development	previous experience	regulatory contest	institutional contest			timing					Renewable Energy	Tertiary (non munic	Region	4	4	3,5	
14	European Structural and Investments Fund	European Regional Development fund	previous experience	regulatory contest	institutional contest			timing					EE buildings	Residential building	Region	4	4	4	
15		European Regional Development fund	previous experience	regulatory contest	institutional contest			timing					EE public lighting	Public lighting	Region & Municipality	4	4	4	
16		European Regional Development fund	previous experience	regulatory contest	institutional contest			timing					EE transport	Private and commx	Region & Municipality	4	4	4	
17		European Regional Development fund	previous experience	regulatory contest	institutional contest			targeting								1	1	1	
18		European Social fund	previous experience	regulatory contest	institutional contest			targeting											#DIV/0!
20		Horizon 2020 (Horizon Europe)	previous experience	regulatory contest	institutional contest			regulatory contest	institutional contest	timing			EE buildings	Residential building	Region & Municipality	2	2	2,5	
21	European Funding Programme	JFI Urban Europe	previous experience	regulatory contest	institutional contest			previous experience					EE transport	Public transport	Region & Municipality	2	2	2,5	
22		LIFE	previous experience	regulatory contest	institutional contest	targeting		targeting							Region	1	1	1	
23		Territorial Cooperation	previous experience	regulatory contest	institutional contest			institutional contest	timing				EE other	Municipal buildings	Region & Municipality	2	2	3	
24		Urban Innovative Actions	previous experience	regulatory contest	institutional contest			previous experience	institutional contest	targeting			EE other	Tertiary (non munic	Region & Municipality	2	2	2,5	
25		URBACT	previous experience	regulatory contest	institutional contest			previous experience	institutional contest	targeting			EE buildings	Residential building	Region & Municipality	2	2	3	
26																			#DIV/0!
27																			#DIV/0!
28																			#DIV/0!
29																			#DIV/0!
30																			#DIV/0!
31																			#DIV/0!
32	Project Development Assistance	European Energy Efficiency Fund (EEEF)	previous experience	regulatory contest	institutional contest	targeting		timing					EE other	Tertiary (non munic	Region	3	2	2,5	
33		European Energy Efficiency Fund (EEEF)	previous experience	regulatory contest	institutional contest	targeting		timing					Renewable Energy	Tertiary (non munic	Region	3	2	2,5	
34		European Local Energy Assistance (ELENA)	previous experience	regulatory contest	institutional contest	targeting		timing					Renewable Energy	Municipal buildings	Region	3	3	3	
35		European Local Energy Assistance (ELENA)	previous experience	regulatory contest	institutional contest	targeting		timing					EE transport	Public transport	Region	3	3	3	
36		Horizon 2020 Project Development Assistance (PDA)	previous experience	regulatory contest	institutional contest	targeting		previous experience	institutional contest	timing			EE buildings	Municipal buildings	Region & Municipality	3	3	3	
37	Joint Assistance to Support Projects in European Regions	previous experience	regulatory contest	institutional contest	targeting		previous experience	institutional contest	regulatory contest						Region	4	4	4	
38																			#DIV/0!
39																			#DIV/0!
40	Financial institutions instruments	European Fund for Strategic Investments (EFSI)	institutional contest					previous experience	timing						Region				#DIV/0!
41		EIS - Municipal Framework Loans	institutional contest					previous experience	timing						Region				#DIV/0!
42		Natural Capital Financing Facility	institutional contest					previous experience	timing						Region				#DIV/0!
43																			#DIV/0!
44																			#DIV/0!
45																			#DIV/0!
46	Alternative financing schemes	Citizen Cooperatives	previous experience	regulatory contest	institutional contest	targeting		institutional contest					Renewable Energy	Residential building	Municipality	4	2	3	
47		Crowd-funding	previous experience	regulatory contest	institutional contest	targeting		regulatory contest	institutional contest				EE buildings	Residential building	Municipality	3	1	2	
48		Energy Performance Contracting	previous experience	regulatory contest	institutional contest	targeting		previous experience					EE public lighting	Public lighting	Region & Municipality	3	2	2,5	
49		Green municipal bonds	previous experience	regulatory contest	institutional contest	targeting		previous experience	institutional contest				EE transport	Private and commx	Municipality	3	2	2,5	
50		Green municipal bonds	previous experience	regulatory contest	institutional contest	targeting		previous experience	institutional contest				Renewable Energy	Residential building	Municipality	3	2	2,5	
51		on-bill financing	regulatory contest					regulatory contest	institutional contest										#DIV/0!
52	revolving loan funds	regulatory contest					regulatory contest	institutional contest					EE buildings	Municipal buildings	Region & Municipality	2	2	2	
53	soft loans, guarantees	regulatory contest					regulatory contest	institutional contest					EE buildings	Municipal buildings	Region & Municipality	2	2	2	
54																			#DIV/0!
55																			#DIV/0!
56	Other instruments/Mechanisms	feed in tariff													Municipality				#DIV/0!
57		tax deduction													Region & Municipality				#DIV/0!
58																		#DIV/0!
59																		#DIV/0!
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61																			#DIV/0!
62																			#DIV/0!
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ANNEX III

Financial Instruments mapping & matching worksheet for North East Romania

SF_5.4a_Fis_mapping&matching_v4_28.05.2019_PP3.xlsx - Excel

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F41 Opportunity 4

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
	Type of Financial Instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Opportunity 6	Opportunity 7	Opportunity 8	Opportunity 9	Opportunity 10	Opportunity 11	Type of project	Sector	Implementation area	Level of Appropriation	Level of effectiveness	Score		
11	Options presented in the funding guide of the CoM																			
12	European Structural and Investments Fund	Cohesion fund	timing	regulatory context	targeting					previous experience	institutional context		EE transport	Private and commercial transport	Municipality	3	5	4	POM AP2.4	
13		European Regional Development Fund	regulatory context	targeting					timing					Other non-energy related	Municipality	2	4	3	POM AP4.2	
14		European Regional Development Fund	regulatory context	targeting					timing					Other non-energy related	Municipality	3	4	3.5	POM AP5.1	
15		European Regional Development Fund	timing	regulatory context	targeting				institutional context	previous experience				Renewable Energy	Municipality	4	4	4	POM AP6.1	
16		European Regional Development Fund	timing	regulatory context	targeting				regulatory context	previous experience				EE buildings	Municipality	2	5	3.5	POM AP6.3	
17		European Regional Development Fund	timing	regulatory context	targeting				regulatory context	previous experience				EE other	Municipality	5	5	5	POM AP7.1	
18		European Regional Development Fund	previous experience	institutional context	targeting				regulatory context					EE other	Municipality	5	5	5	POR AP3,5 & 10, 11	
19		European Regional Development Fund	previous experience	institutional context	targeting				regulatory context					EE transport	Public transport	Municipality	5	5	5	POR AP4
20	European Agricultural Fund for Rural Development	previous experience	institutional context	targeting				regulatory context	timing				EE other	Other non-energy related	Municipality	5	5	5	FMDR 8.1	
21																				
22																				
23																				
24																				
25																				
26	European Funding Programme	Connecting Europe Facility	targeting										Renewable Energy		Region & Municipality	1	1	1	CEF Energy	
27		Horizon 2020 (Horizon Europe)	timing	targeting					targeting	previous experience	institutional context	regulatory context	EE other		Region & Municipality	2	3	2.5	SC3	
28		Horizon 2020 (Horizon Europe)	targeting						timing	targeting	previous experience	institutional context	regulatory context	Other non-energy related	Region & Municipality	1	4	2.5	SC5	
29		Horizon 2020 (Horizon Europe)							institutional context	regulatory context	timing	targeting	previous experience	Other non-energy related	Region & Municipality	1	2	1.5	SC2	
30		Horizon 2020 (Horizon Europe)	targeting						institutional context	regulatory context	timing	previous experience		Private and commercial transport	Municipality	2	5	3.5	SC4	
31		JPI Urban Europe	targeting						targeting	previous experience	regulatory context	institutional context		EE other	Municipality	1	4	2.5		
32		LIFE	targeting	previous experience	timing				targeting	previous experience	regulatory context	institutional context		EE other	Region & Municipality	4	3	3.5		
33		Territorial Cooperation	previous experience	institutional context	targeting				timing	regulatory context				EE other	Municipality	5	5	5	CBC RO-MD, RO-UA	
34	Territorial Cooperation	institutional context	targeting					timing	previous experience				EE other	Region & Municipality	3	3	3	terreg Europe, Danube		
35	Urban Innovative Actions	targeting						institutional context	timing	previous experience			EE other	Municipality	2	5	3.5			
36	Urban Innovative Actions	targeting	previous experience	institutional context				timing					EE other	Municipality	4	4	4			
37																				
38																				
39																				
40																				
41	Project Development Assistance	European Energy Efficiency Fund (EEEF)	targeting	timing						previous experience	institutional context	targeting	EE other		Municipality	2	4	3.5		
42		European Energy Efficiency Fund (EEEF)	targeting	timing					targeting	previous experience	institutional context	regulatory context	EE other		Municipality	2	4	3.5		
43		European Local Energy Assistance (ELENA)	targeting	timing					targeting	previous experience	institutional context	regulatory context	EE other		Municipality	2	5	3.5		
44		Horizon 2020 Project Development Assistance (PDA)	targeting						targeting	previous experience	targeting			EE other	Municipality	3	4	3.5		
45	Joint Assistance to Support Projects in European Regions	targeting	previous experience	institutional context	regulatory context	timing		targeting					EE other	Municipality	3	4	3.5			
46																				
47																				
48	Financial Institutions Instruments	European Fund for Strategic Investments (EFSI)	timing	targeting						institutional context	previous experience		EE other		Municipality	3	4	3.5		
49		EIB - Municipal Framework Loans	timing	targeting	institutional context						previous experience		EE other		Municipality	4	5	4.5		
50		Natural Capital Financing Facility	timing	targeting							institutional context	previous experience		EE other	Municipality	3	4	3.5		
51																				
52																				
53																				
54	Alternative Financing Schemes	Citizen Cooperatives	timing	targeting						regulatory context	previous experience	institutional context		EE other		Municipality	2	5	3.5	
55		Crowd-funding	timing	targeting	regulatory context						previous experience	institutional context		EE other	Region & Municipality	3	5	4		
56		Energy Performance Contracting	timing	targeting	regulatory context						previous experience	institutional context		EE buildings	Municipality	3	4	3.5		
57		Green municipal bonds	timing	targeting	regulatory context						institutional context	previous experience		EE other	Municipality	3	3	2.5		
58		on-bill-financing	timing	targeting	regulatory context						regulatory context	previous experience	institutional context	targeting	EE other	Municipality	2	4	3	
59		Revolving loan funds	timing	targeting	regulatory context	regulatory context	timing				previous experience	regulatory context	institutional context	targeting	EE buildings	residential building	Municipality	4	5	4.5
60	Soft loans, guarantees	timing	targeting	previous experience	regulatory context	timing				institutional context	targeting		EE buildings	residential building	Municipality	3	5	4		
61																				
62																				

Sheet1 lists

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ANNEX IV

Financial Instruments mapping & matching worksheet for Istria Region, Croatia

SF_5.4a_Fin_mapping&matching_v4_IDA.xlsx - Excel

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
10	Options presented in the funding guide of the CoM																		
11			Opportunities					Sectors					Type of project	Sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
12	European Regional Development Fund	previous experience	regulatory context	institutional context				timing					EE transport	ste and commercial trans	Region & Municipality	4	3	2.5	
13	European Regional Development Fund	previous experience	regulatory context	institutional context				timing					EE public lighting	Public lighting	Municipality	4	4	4	
14	European Regional Development Fund	previous experience	regulatory context	institutional context				timing					EE buildings	Residential buildings	Municipality	5	4	4.5	
15	European Agricultural Fund for Rural Development	previous experience	regulatory context	institutional context				timing					Renewable Energy		Region & Municipality	4	4	4	
16	European Maritime and fisheries Fund	previous experience	regulatory context	institutional context				targeting					EE other	riculture, Forestry, Fisher	Region	4	4	4	
17	Cohesion Fund	previous experience	regulatory context	institutional context				timing					EE buildings	Residential buildings	Region	4	3	3.5	
18																		#DIV/0!	
19																			#DIV/0!
20																			#DIV/0!
21			Opportunities					Sectors					Type of project	Sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
22	Horizon 2020 (Horizon Europe)	previous experience	regulatory context	institutional context				timing	regulatory context	institutional context	timing		EE buildings	Residential buildings	Region & Municipality	3	3	3	
23	LIFE	previous experience	regulatory context	institutional context				timing	targeting	regulatory context	institutional context	timing	EE other	Residential buildings	Region & Municipality	3	3	3	
24	URBACT	previous experience	regulatory context	institutional context				timing	targeting	regulatory context	institutional context	timing	EE buildings	Residential buildings	Region & Municipality	3	3	3	
25	Territorial Cooperation	previous experience	regulatory context	institutional context				targeting	timing	regulatory context	institutional context	timing	EE other	Municipal buildings	Region & Municipality	2	3	2.5	
26	JPI Urban Europe	regulatory context			targeting			previous experience	timing	institutional context		timing	EE transport	Public transport	Municipality	2	3	2.5	
27																			#DIV/0!
28																			#DIV/0!
29																			#DIV/0!
30																			#DIV/0!
31			Opportunities					Sectors					Type of project	Sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
32	Horizon 2020 Project Development Assistance (FDA)	institutional context	regulatory context	targeting				previous experience	timing				EE buildings	Municipal buildings	Region & Municipality	3	3	3	
33	European Local Energy Assistance (ELENA)	previous experience	regulatory context	institutional context				timing	regulatory context	institutional context	timing		EE transport	Public transport	Region	3	3	3	
34	European Local Energy Assistance (ELENA)	previous experience	regulatory context	institutional context				timing	regulatory context	institutional context	timing		Renewable Energy	Municipal buildings	Region & Municipality	3	3	3	
35	European Energy Efficiency Fund (EEEF)	previous experience	regulatory context	targeting				timing	regulatory context	institutional context	targeting		Renewable Energy	tag (non municipal) build	Region	3	3	3	
36	European Energy Efficiency Fund (EEEF)	previous experience	regulatory context	targeting				timing	regulatory context	institutional context	targeting		EE other	tag (non municipal) build	Region & Municipality	3	3	2.5	
37																			#DIV/0!
38																			#DIV/0!
39			Opportunities					Sectors					Type of project	Sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
40	EIB - Municipal Framework Loans	targeting	institutional context					timing	previous experience				EE buildings	Municipal buildings	Region & Municipality	2	2	2	
41	European Fund for Strategic Investments (EFSI)	targeting	institutional context					timing	previous experience				EE other	Municipal buildings	Region & Municipality	2	2	2	
42	Natural Capital Financing Facility	institutional context						previous experience	timing				EE other	Municipality	Municipality	2	2	2	
43																			#DIV/0!
44			Opportunities					Sectors					Type of project	Sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
45	Crowd-funding	regulatory context	previous experience	regulatory context				previous experience	institutional context				EE buildings	Residential buildings	Municipality	3	3	3	
46	Citizen Cooperatives	regulatory context	previous experience	regulatory context				institutional context	institutional context	previous experience			Renewable Energy	Residential buildings	Municipality	3	3	3	
47	Green municipal bonds	regulatory context	targeting		targeting			institutional context	previous experience				EE transport	ste and commercial trans	Municipality	3	2	2.5	
48	Energy Performance Contracting	institutional context	regulatory context	targeting				previous experience	previous experience				EE public lighting	Public lighting	Municipality	4	4	3.5	
49	Revolving loan funds	regulatory context	institutional context					regulatory context	institutional context	previous experience			EE buildings	Municipal buildings	Municipality	2	2	2	
50	Soft loans, guarantees	regulatory context	institutional context					regulatory context	institutional context	previous experience			EE buildings	Municipal buildings	Municipality	2	2	2	
51																			#DIV/0!
52																			#DIV/0!
53			Opportunities					Sectors					Type of project	Sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
54	Other instruments/Mechanisms																		#DIV/0!
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ANNEX V

Financial Instruments mapping & matching worksheet for Central Macedonia Region, Greece

SF_5.4a_Fis_mappingmatching_v4 RCM.xlsx - Excel

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
	Options presented in the funding guide of the CoM		Opportunities					Domains					Type of project	Sector	Implementation area	Level of applicability	Level of effectiveness	Score		
	Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Domain 1	Domain 2	Domain 3	Domain 4	Domain 5	Domain 6	Domain 7	Domain 8	Domain 9	Domain 10	Domain 11	Domain 12	Domain 13	
11	European Regional Development Fund	previous experience	regulatory context	institutional context	timing	targeting	targeting	timing	timing	EE buildings	Municipal buildings	Municipality	4	4	4	4	4	4	4	
12	European Regional Development Fund	previous experience	regulatory context	institutional context	timing	targeting	targeting	timing	timing	EE buildings	Tertiary (non-muni)	Municipality	4	4	4	4	4	4	4	
13	European Regional Development Fund	previous experience	regulatory context	institutional context	timing	targeting	targeting	timing	timing	EE buildings	Residential building	Municipality	4	4	4	4	4	4	4	
14	European Regional Development Fund	previous experience	regulatory context	institutional context	timing	targeting	targeting	timing	timing	EE transport	Municipal fleet	Municipality	4	2	3	3	3	3	3	
15	Cohesion Fund	previous experience	regulatory context	institutional context	timing	targeting	targeting	timing	timing	EE transport	Private and comm	Region & Municipality	4	3	3	3	3	3	3	
16	Cohesion Fund	previous experience	regulatory context	institutional context	timing	targeting	targeting	timing	timing	EE transport	Public transport	Region & Municipality	4	4	4	4	4	4	4	
17	European Regional Development Fund	previous experience	regulatory context	institutional context	timing	targeting	targeting	timing	timing	Renewable Energy	Industry	Region	4	3	3	3	3	3	3	
18																			#DIV/0!	
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25	Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Domain 1	Domain 2	Domain 3	Domain 4	Domain 5	Domain 6	Domain 7	Domain 8	Domain 9	Domain 10	Domain 11	Domain 12	Domain 13	
26	Horizon 2020 (Horizon Europe)	targeting					institutional context	regulatory context	timing	revious experience	EE transport	Private and comm	Municipality	2	5	3	3	3	3	
27	URBACT	previous experience	regulatory context	institutional context	timing		targeting	targeting		EE buildings	Residential building	Region & Municipality	3	3	3	3	3	3	3	
28	LIFE	targeting	revious experience	timing			targeting			EE other		Region & Municipality	4	3	3	3	3	3	3	
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31																				#DIV/0!
32																				#DIV/0!
33																				#DIV/0!
34	Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Domain 1	Domain 2	Domain 3	Domain 4	Domain 5	Domain 6	Domain 7	Domain 8	Domain 9	Domain 10	Domain 11	Domain 12	Domain 13	
35	European Local Energy Assistance (ELENA)	institutional context	regulatory context	timing			previous experience	targeting		Renewable Energy		Municipality	4	3	3	3	3	3	3	
36	European Local Energy Assistance (ELENA)	institutional context	regulatory context	timing			previous experience	targeting		EE buildings	Municipal buildings	Municipality	4	3	3	3	3	3	3	
37	European Local Energy Assistance (ELENA)	institutional context	regulatory context	timing			previous experience	targeting		EE transport	Municipal fleet	Municipality	3	2	2	2	2	2	2	
38	European Local Energy Assistance (ELENA)	institutional context	regulatory context	timing			previous experience	targeting		EE transport	Public transport	Region & Municipality	3	2	2	2	2	2	2	
39	European Local Energy Assistance (ELENA)	institutional context	regulatory context	revious experience	timing					EE public lighting	Public lighting	Municipality	3	3	3	3	3	3	3	
40																				#DIV/0!
41	Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Domain 1	Domain 2	Domain 3	Domain 4	Domain 5	Domain 6	Domain 7	Domain 8	Domain 9	Domain 10	Domain 11	Domain 12	Domain 13	
42	EIB - Municipal Framework Loans	institutional context	timing				regulatory context	revious experience	targeting	Renewable Energy	Waste water manag	Municipality	1	2	1	1	1	1	1	
43	Natural Capital Financing Facility	institutional context	timing	targeting	regulatory context	revious experience	targeting	regulatory context		EE public lighting	EE public lighting	Municipality	4	4	4	4	4	4	4	
44																				#DIV/0!
45																				#DIV/0!
46																				#DIV/0!
47	Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Domain 1	Domain 2	Domain 3	Domain 4	Domain 5	Domain 6	Domain 7	Domain 8	Domain 9	Domain 10	Domain 11	Domain 12	Domain 13	
48	Energy Performance Contracting	regulatory context					previous experience	timing	targeting	institutional context	EE buildings	Municipal buildings	Region & Municipality	2	3	3	3	3	3	
49	Citizen Cooperatives	regulatory context	institutional context	timing			previous experience	institutional context	targeting	Renewable Energy	Industry	Region & Municipality	3	3	3	3	3	3	3	
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54																				#DIV/0!
55																				#DIV/0!
56	Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Domain 1	Domain 2	Domain 3	Domain 4	Domain 5	Domain 6	Domain 7	Domain 8	Domain 9	Domain 10	Domain 11	Domain 12	Domain 13	
57	feed in tariff																			#DIV/0!
58	tax deduction																			#DIV/0!
59																			#DIV/0!
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ANNEX VI

Financial Instruments mapping & matching worksheet for North Hungary

SF_5.4a_Fis_mapping&matching_PP9.xlsx - Excel

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
10	Options presented in the funding guide of the CoM																		
11		Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Opportunity 6	Opportunity 7	Opportunity 8	Opportunity 9	Opportunity 10	Type of project	Sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
12	European Structural and Investments Fund	European Regional Development Fund	previous experience	regulatory context	institutional context								EE buildings	Municipal buildings	Municipality	4	5	4,5	
13		European Regional Development Fund	regulatory context	institutional context	previous experience								EE transport	Municipal buildings	Municipality	5	5	5	
14		Cohesion Fund	previous experience	regulatory context	institutional context								EE buildings	Municipal fleet	Municipality	4	5	4,5	
15		Cohesion Fund	regulatory context	institutional context	previous experience								EE buildings	Municipal buildings	Municipality	5	5	5	
21	European Funding Programme	Territorial Cooperation	regulatory context	institutional context	timing								Renewable Energy	Municipal buildings	Municipality	3	3	3	
22		LIFE	regulatory context	institutional context	timing								EE other	Residential buildings	Municipality	3	3	3	
23		URBACT	regulatory context	institutional context	timing								EE other	Residential buildings	Municipality	3	4	3,5	
24		Horizon 2020 (Horizon Europe)	regulatory context	institutional context	timing								EE other	her non-energy relat	Municipality	2	4	3	
25		Territorial Cooperation	regulatory context	institutional context	targeting								EE transport	Public transport	Municipality	3	4	3,5	
26																			#DIV/0!
31	Project Development Assistance	European Local Energy Assistance (ELENA)	regulatory context	institutional context	timing								EE buildings	Municipal buildings	Municipality	3	4	3,5	
32		European Local Energy Assistance (ELENA)	regulatory context	institutional context	timing								EE transport	EE transport	Municipality	4	3	3,5	
33		Horizon 2020 Project Development Assistance (PI)	regulatory context	institutional context	timing								Renewable Energy	Renewable Energy	Municipality	4	4	4	
34		Horizon 2020 Project Development Assistance (PI)	regulatory context	institutional context	timing								EE transport	EE other	Municipality	3	4	3,5	
35																			#DIV/0!
37	Financial Institutions Instruments																		
38		Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Opportunity 6	Opportunity 7	Opportunity 8	Opportunity 9	Opportunity 10	Type of project	Sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
43	Alternative Financing Schemes	Energy Performance Contracting	targeting	timing									EE public lighting	Public lighting	Municipality	4	4	4	
44		Energy Performance Contracting	targeting	timing									EE other	Municipal buildings	Municipality	3	4	3,5	
45		Energy Performance Contracting	targeting	timing									EE buildings	3 (non municipal) buildings		4	4	4	
46		soft loans, guarantees	regulatory context	timing	regulatory context								EE buildings	Residential buildings		4	4	4	
47		soft loans, guarantees	regulatory context	timing	regulatory context								Renewable Energy	Residential buildings		4	4	4	
48	Crowd-funding	targeting	timing									EE other	Residential buildings		3	3	3		
52	Other Instruments/Mechanisms																		
53		Type of financial instrument/Mechanism	Opportunity 1	Opportunity 2	Opportunity 3	Opportunity 4	Opportunity 5	Opportunity 6	Opportunity 7	Opportunity 8	Opportunity 9	Opportunity 10	Type of project	Sector	Implementation area	Level of Applicability	Level of effectiveness	Score	
54		feed in tariff																	#DIV/0!
55		tax deduction																	#DIV/0!
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