

DELIVERABLE T4.1.1

D.T4.1.1

11/2018

Comparative analysis of financial schema

Italy	- Emilia-Romagna
Czech Republic	- Zlín Region
Hungary	- Tolna County
Slovenia	- Mestna Občina Velenje
Croatia	- Koprivnica
Poland	- Płóńsk
	- Gmina Lubawka
Austria	- Judenburg





D.T4.1.1: Comparative analysis of financial schema

A.T4.1 Transnational EE financing strategy development

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Table of Content

1. Introduction and aims of the document.....	3
1.1 Basic information on the area	3
1.2 Classification of EE activities and EE funds.....	3
1.3 Funding Mix Matrix	5
1.4 Evaluation of existing experience of EE financing policy implementation in partners regions	5
1.5 Best practices and investments return models.....	7
2. Comparative analysis of financial and schema in BOOSTEE-CE partners regions..	8
2.1 Basic comparison of areas analyzed:	8
2.2 Current EE financing situation in partners areas.....	10
2.3 Comparison of the current funding mix matrix for EE financing (2017)	20
2.4 Existing experience in partners regions	25
2.5 Best practices and investments return models.....	35
3. Conclusions.....	36



1. Introduction and aims of the document

During the realization of BOOSTEE-CE project, it became clear that municipalities/cities of various countries have different level of knowledge on the energy efficiency as well as the ways of energy efficiency actions financing.

This document is the second towards elaborating “O.T4.1 Transnational EE financing strategy” which will describe how to look for, find and adopt different financing solutions for energy efficiency improvement.

Comparative analysis D.T4.1.1 is defined as Analysis & elaboration of differences among financial schema in partner countries, considering EU grants/funds, possible normative obstacles, investment return, models, etc. The document will also highlight market-enabling actions for large investments.

Comparative analysis tries to summarize the findings of DT4.1.4 i.e. try to summarize and analyze all the information collected by all partner regions. Additionally, it highlights the approaches (strategies and/or practices) towards EE financing which our PPs finds the best.

The comparative analysis is carried out in 5 main sections

- Basic information on the area
- Classification of EE activities and EE funds
- Funding Mix Matrix
- Evaluation of existing experience of EE financing policy implementation in partners regions
- Best practices and investments return models

1.1 Basic information on the area

General overview of each partner’s region in order to get a concrete idea of what areas/regions are compared

1.2 Classification of EE activities and EE funds

a) Classification of partners EE activities

In this section, energy efficiency activities are analysed and evaluated from the perspective of two basic areas: *EE services* and *EE projects*.



'EE services' are the core activities which must be continuously provided to fulfil partner's EE strategic objectives. These forms may include:

- Development and maintaining energy management
- Energy efficiency central advice service provided by partner
- Training and educational activities in the field of EE
- Monitoring of implementation of energy efficiency policy
- Support citizens / public authorities / companies in the acquisition of EE funds (information dissemination and promotion of co-financing programs and other financial resources)
- Planning and policy (SEAP, SECAP, yearly investment plans, general/city development strategy etc.)
- Changes in behaviour
-

'EE Projects' are defined as short-term, self-contained activities that augment the EE services, boost the energy efficiency by reducing the amount of energy required to provide services and products. These will come and go over time as project funding, partner's priorities and the decisions of partner's decision making bodies.

b) Classification of EE funds

The sources of financing ensuring energy efficiency can be classified according to levels of restriction and the continuity and security of funds. Upon such a classification four categories of EE funds was identified and analysed within each partner region:

General Fundraising

Short-term and relatively unrestricted income, such as events and public donations, crowdfunding etc.

Project funding

Short-term and relatively restricted funds provided by various institutions ranging from local government to EU funding. Being project-specific, these funds generally last for 1-3 years and are difficult to extend which might be leading to a loss of project continuity.

Programme funding

Existing local/regional financing provided by partners to support EE in their regions or areas where a strong working relationship has been established and where grants are based on programme themes, e.g. municipality own energy efficiency fund etc.

Core financing

Regular and flexible income, i.e. partner's own resources used to core operation of EE services (projects), not so restricted like programme funding.



Note: This classification focuses on the purpose and temporality. All categories may involve different sources regarding external sources, own sources and loans.

1.3 Funding Mix Matrix

Comparison against following funding mix matrix in each evaluated area provides important information about short and long term planning of EE funding as well as strategy adopted in EE financing in each area compared

		Unrestricted			
		General fundraising	Core financing		
		Short- to medium-term (1 to 3 years) Relatively unrestricted <i>e.g. crowdfunding</i>	Medium- to long-term (3 to 5+ years) Relatively unrestricted <i>e.g., investment income, regular incomes</i>		
Short-term		Project funding	Programme funding	Long-term	
		Short to medium term (1 to 3 years) Relatively restricted <i>e.g. Project financed by EU funds, operational Programmes, regional grants, EPC...</i>	Medium- to long-term (3 to 5 years) Relatively restricted <i>e.g. own regional or local programmes based on long term EE strategy</i>		
		Restricted			

Note: This classification focuses on the purpose and temporality. All categories may involve different sources regarding external sources, own sources and loans.

1.4 Evaluation of existing experience of EE financing policy implementation in partners regions

- Collection and evaluation of partners’ practice regarding EE financing policy was carried in a structured way common for all partners. The SWOT analysis was the important part of this section and this analysis was based not only on the experience of BOOSTEE-CE partners but also on a survey with potential main target groups in order to address their needs. The potential target groups in each region/area involved mainly:
 - Local public authorities
 - Regional public authorities
 - Sectoral agencies
 - Infrastructure and (public) service providers
 - SMEs
 - Business support organisations



The common structure of the survey for all evaluated regions:

- Is there any EE financial strategy available for your region?
Name, year of approval. Might also apply just for a section dedicated to EE financing as a part of some other document (SEAP, energy concept etc.)
- Who officially approves the EE financial strategy and for how long period?
- Indicative yearly budget for EE financing
- SWOT analysis of both internal and external conditions & environment for EE financial strategy development and implementation
Include the information on a survey with potential main target groups in order to address their needs – see section 1.5., i.e how this survey was carried out and who was questioned.

Internal and external conditions & environment for EE financial strategy development and implementation	
Strengths	Opportunities
- ... -	- ... -
Weaknesses	Threats
- ... -	- ... -

- Which EE activities are planned to be supported in next periods
According to existing official strategical documents, action plans etc...
- Which of the ways of financing energy efficiency investments do you consider the most effective?
 - EU funding
 - loans / grants from national co-financing programs
 - bank loans
 - own resources
 - other (what?)
- Monitoring process and evaluation of EE financing policy implemented
How do you monitor and evaluate your EE financing policy. Are there any sets of indicators against which is evaluation carried out, evaluation reports etc., please describe



1.5 Best practices and investments return models

Partners delivered various best practice examples of EE financing from their countries upon the following structure.

General:

- Name of the action:
- Time period / year of realisation:
- Description of the action (1500-2000 characters):
- Partners involved:
- Key results (300 - 500 characters):
- Success factors identified (300 - 500 characters):
- Barriers / restrictions / obstacles encountered (300 - 500 characters):
- Ways to deal with barriers / obstacles / problems (300 - 500 characters):
- Contact, website:
- Pictures enclosed separately

Financial:

It is necessary to complete all the items below in order to carry out a relevant investment return model and get at least basic indicators such as NPV, IRR and Ts (simple payback period).

Investment (EUR):

- Overall investment costs:
 - From that...
 - Own sources:
 - Subsidies (by whom):
 - Loans (including interest rate and payment period):
- Lifetime (service life):
- Depreciation period:

Operational features (EUR):

- Annual operational cost incl. salaries, repairs, maintenance and other specific costs:
- Annual revenues – please specify which and how much in EUR:

Such structured best practice on EE financing enabled to compare and understand various ways of EE financing implemented in practice and identify both advantages and disadvantages of each particular EE financing method implemented

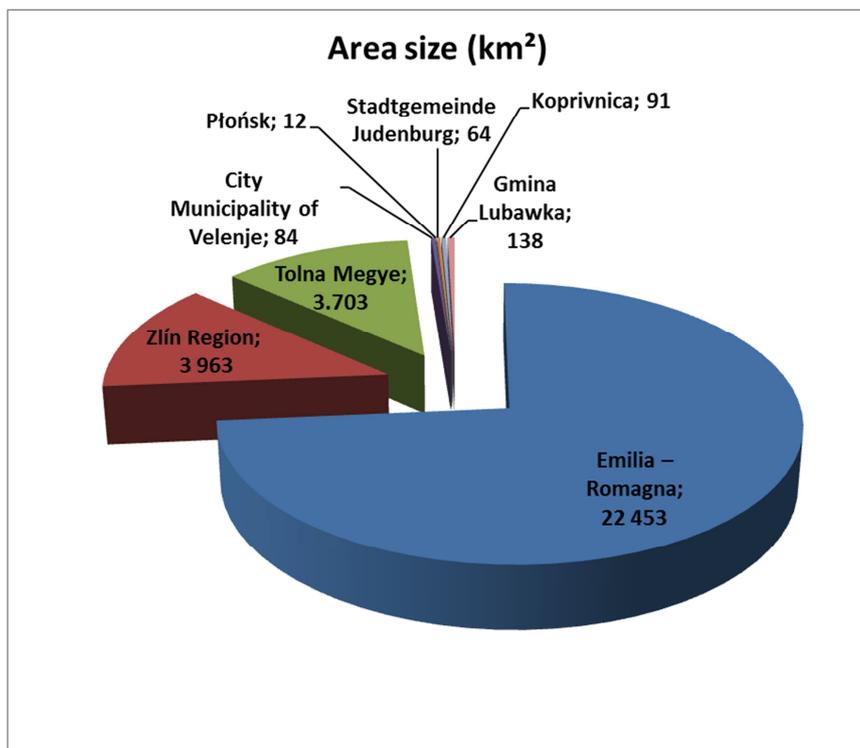
2. Comparative analysis of financial and schema in BOOSTEE-CE partners regions

2.1 Basic comparison of areas analyzed:

Name of the region / area	Population	Area size (km ²)	GDP (2016)	GDP per capita (2016)
Emilia – Romagna	4 431 333	22 453	153 997 000 000,00 €	€ 34 752
Zlínský kraj	584 000	3 963	8 456 000 000,00 €	€ 14 479
Tolna Megye	221 799	3 703	1 900 000 000,00 €	€ 8 566
Velenje	34 597	84	624 478 864,21 €	€ 18 050
Koprivnica	30 854	91	263 736 780,18 €	€ 8 548
Płóńsk	22 500	12	397 031 793,76 €	€ 17 646
Lubawka	11 109	138	136 571 461,20 €	€ 12 294
Judenburg	10 063	64	361 744 045,82 €	€ 35 948

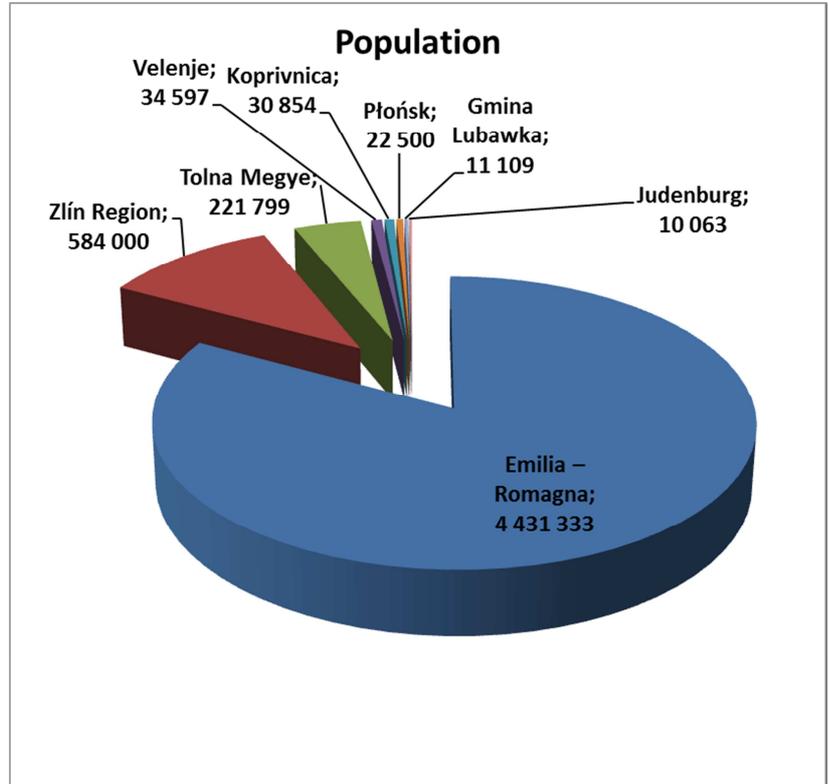
2.1.2 Partners regions listed by area size

Name of the region / area	Area size (km ²)
Emilia – Romagna	22 453
Zlínský kraj	3 963
Tolna Megye	3 703
Lubawka	138
Koprivnica	91
Velenje	84
Judenburg	64
Płóńsk	12



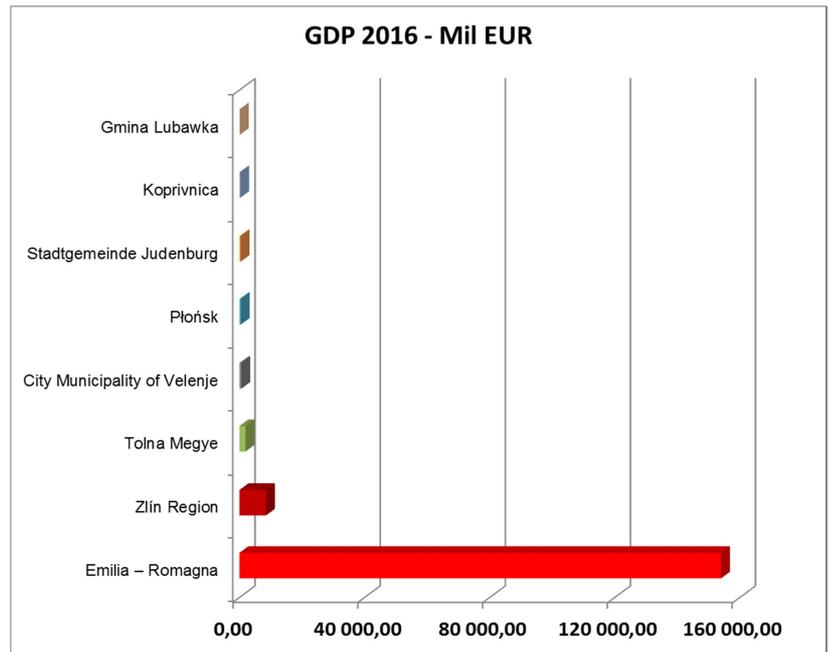
2.1.3 Partners regions listed by population

Name of the region / area	Population
Emilia – Romagna	4 431 333
Zlínský kraj	584 000
Tolna Megye	221 799
Velenje	34 597
Koprivnica	30 854
Płońsk	22 500
Lubawka	11 109
Judenburg	10 063



2.1.4 Partners regions listed by GDP (2016)

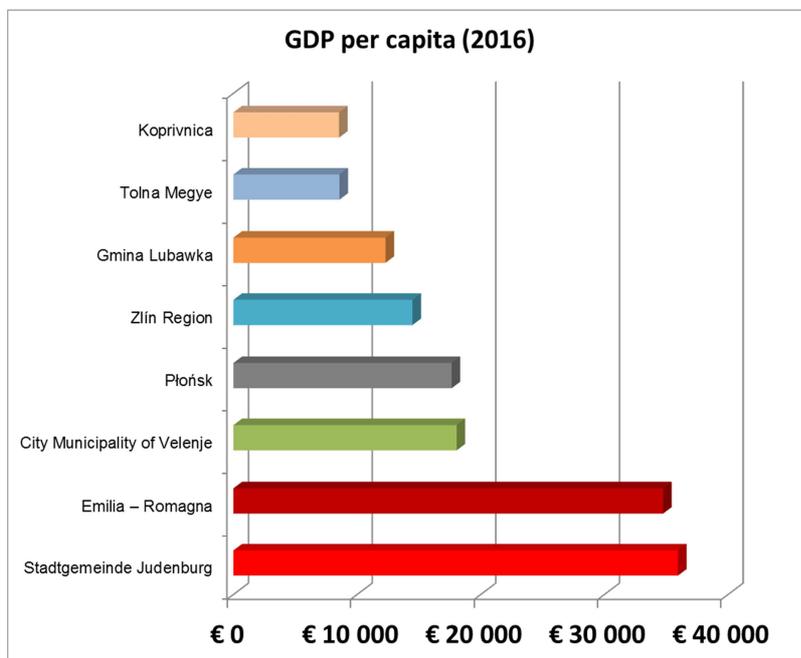
Name of the region / area	GDP (2016)
Emilia – Romagna	153 997 000 000,00 €
Zlínský kraj	8 456 000 000,00 €
Tolna Megye	1 900 000 000,00 €
Velenje	624 478 864,21 €
Koprivnica	263 736 780,18 €
Płońsk	397 031 793,76 €
Lubawka	136 571 461,20 €
Judenburg	361 744 045,82 €





2.1.5 Partners regions listed by GDP per capita (2016)

Name of the region / area	GDP per capita (2016)
Judenburg	€ 35 948
Emilia – Romagna	€ 34 752
Velenje	€ 18 050
Płońsk	€ 17 646
Zlínský kraj	€ 14 479
Lubawka	€ 12 294
Tolna Megye	€ 8 566
Koprivnica	€ 8 548



From graphs and figures above it is apparent that different regions are compared not only from population, economical power or geographical size point of view but also from governance and competences these areas dispose with. This fact is actually the opportunity to find common issues as well as identify gaps and opportunities in EE financing that might be resolved with being inspired from other regions as well as from different governance levels

2.2 Current EE financing situation in partners areas

2.2.1 EE services

- Following table provides basic comparison of EE services provided by particular partners in each are.

Name of the region / area	Scale of services provided	Amount of funds needed annually (if not specified)	Sources of financing
Emilia – Romagna	Inventory of Regional Thermal Plants - CRITER	3.000.000 EUR	100% own sources (Regional budget)
	Regional Energy Building Certification System-SACE	3.000.000 EUR	100% own sources (Regional budget)
Zlínský kraj	Support citizens / public authorities / companies in the acquisition of EE funds (dissemination and promotion of co-financing)	10.000 EUR	Regional budget EU projects



	programs and other financial resources)		
	Initiation and coordination of bulk energy purchase (natural gas and electricity) for organization established by the Zlín Region and towns and villages of the Zlín Region	25.000 EUR	Regional budget EU projects
	Technical advisory in energetics provided to citizens of the Zlín Region related to EE and refurbishment of buildings and RES utilization.	10.000 EUR	Regional budget
	Energy management provided to organisations and towns of the Zlín Region	50.000 EUR	Regional budget
	Initiation and preparation of EE and RES projects submitted to various OP	70.000 EUR	Regional budget EU projects
	International cooperation in the field of energy planning, RES and EE promotion within the the cooperation with other EU regions	40.000 EUR	Regional budget EU projects
Tolna Megye	Training and educational activities in the field of EE	Ca. 4000 EUR per training	EU projects and national OPs
	Monitoring of implementation of energy efficiency policy - update the county's development plans as a general role.	Covered by County budget	100% own sources
	Support citizens / public authorities / companies in the acquisition of EE funds (dissemination and promotion of co-financing programs and other financial resources)	One project can apply for max 16.130 EUR.	Environment and Energy Efficiency OP 3.225.806 EUR budget on national level
	Planning and policy (SEAP, SECAP, yearly investment plans, general/city development strategy etc.	Ca. 9.600 EUR in average per settlement.	Financed by the municipalities.
Velenje	Energy management (for running of local energy agency-KSSENA) ^{energy}	50.000 EUR	Municipal budget
Koprivnica	Energy services provided by REA North - Project development, project and investment management, technical advices	60.000 EUR	100% own sources (municipal budget)
	In-house energy expertize, energy related administration, energy investments, EU projects etc.	50.000 EUR	100% own sources (municipal budget)
	Capacity building and promotion to employees, private sector and citizens regarding EE, energy planning , RES etc.	10.000 EUR	Own sources (municipal budget) + external sources
Płońsk	Planning and policy – City Development Strategy including ecological policy, which set up targets related to EE – e.g. increasing usage	1.300.000 EUR for future investments related to EE	Own sources (municipal budget), EU funds



	of RES, boosting EE public and housing sector		
	Planning and policy – City Revitalization Program - Framework for investment realization	2.000.000 EUR for future investments related to EE	Own sources (municipal budget), EU funds
	Educational activities - lectures in schools and special events	5.000 EUR	Own sources (municipal budget)
	Partnership within Płoński Energy Cluster to to promote and initiate local projects in the field of energy production, implement energy-saving and highly-efficient technologies etc	n/a	Own sources (municipal budget)
Lubawka	<i><u>This partner is primarily focused on EE projects – see the section EE projects below this table</u></i>	n/a	n/a
Judenburg	Financial support for EE - Subsidies for thermal insulation, installation of biomass heating systems, thermal solar energy and PV-systems for households and businesses	15,000 EUR	Core financing
	Development and maintaining of energy management	5,000 EUR	Core financing
	Energy efficiency advice <ul style="list-style-type: none"> • training and educational activities in the field of EE • information dissemination and promotion of co-financing programs and other financial resources 	20,000 EUR	Core financing
	Planning, implementation and monitoring of EE-policies (SEAP, eea-annual plans)	15,000 EUR	Core financing
	Planning and monitoring of EE investments in public buildings	15,000 EUR	Core financing
	Planning and monitoring of city development strategy (external spatial planners, software, staff)	45.000 EUR	Core financing

- Closer look at the table of **EE services** provided by particular partners revealed that almost all partners are developing advanced energy management in their facilities, no matter how large the region is. Another largely implemented EE service by partner regions is support to various applicants in the development of their EE and RES projects acquisition of EE funds available. The scale of services varies from partner to partner, yet, it is possible to conclude that most of the partners regions have advanced support of EE services in their areas:



2.2.2 EE projects

- The table below provides basic overview of EE projects realised in partners areas in recent 5 years upon the classification outlined in the section 1.2 of this document.

Name of the region / area	EE project(s)	Amount of funds needed	Sources of financing
Emilia – Romagna	Energy audits for SMEs - realisation of energy audits or adoption of energy management systems	2.400.000 EUR	100% public fund (25% National, 75% The Three- Year Implementation Plan 2017-2019 of the new Regional Energy Plan)
	Energy Fund for SMEs - Financial instrument to financial support projects aimed at improving EE and increasing the use of RES	36.000.000 EUR	Unsecured-loans at reduced rates with mixed provision resulting partly from the public share (70%) and partly from the private share (30%) for each admissible project
	Energy efficiency improvement in public buildings and public housing	36.600.000 EUR	Fund covering up to the 30% of the total investments for EE interventions
Zlínský kraj	3 investment projects on increasing the energy efficiency in buildings of the Zlín Region (2.615,16 GJ annual energy savings; 145,29 annual CO2 savings) – OP Environment 50 th call (I)	5.099.000 EUR	Regional budget 58% OP Environment 42%
	1 investment project on increasing the energy efficiency in buildings of the Zlín Region (2.371,49 GJ annual energy savings; 125,45 annual CO2 savings) – OP Environment 50 th call (II)	562.000 EUR	Regional budget 58% OP Environment 42%
	1 investment project on increasing the energy efficiency in buildings of the Zlín Region (486,50 GJ annual energy savings; 27,03 annual CO2 savings)	391.000 EUR	Regional budget 40% OP Environment 60%
	7 investment projects on increasing the energy efficiency in buildings of the Zlín Region (3.717,6 GJ annual energy savings; 235,11 annual CO2 savings)	4.536.000 EUR	Regional budget 72% OP Environment 28%
	2 investment projects on increasing the energy efficiency in buildings of the Zlín Region (593,3 GJ annual energy savings; 33,28 annual CO2 savings)	471.000 EUR	Regional budget 71% OP Environment 29%



	1 investment project on increasing the energy efficiency in buildings of the Zlín Region (2.202,5 GJ annual energy savings; 147,47 annual CO2 savings)	1.675.000 EUR	Regional budget 85% OP Environment 15%
Tolna Megye	Elaboration of Tolna County's Climate Strategy leading to the expansion of climate adaptation and climate change prevention of local government leaders, the strengthening of local capacities and the clarity of the Tolna County population. The long-term goal is to apply climate change adaptation and climate change considerations at county level spatial development and town-level urban planning.	96.700 EUR	Environmental and Energy Efficiency OP
Velenje	Energy renovation of 2 kindergartens - facade renovation, Installation of new windows and roof insulation	502.765 EUR	15 % Municipality of Velenje 85% cohesion fund from Ministry of infrastructure (EU funding)
	Energy renovation of healthcare Centre in Velenje - windows , recuperation, new electric and other installations	1.288.616 EUR	15 % Municipality of Velenje 85% cohesion fund from Ministry of infrastructure (EU funding)
	Energy renovation of vila Rožle - windows and roof insulation	273.134 EUR	85% EE Culture 10% national funds 5% Municipality of Velenje
	Energy renovation of regional gallery of Velenje	1.381.977 EUR	70% EU and regional development funds 30% Municipality of Velenje
	Renovation of business centre Standard	1.695.975 EUR	85% EU and regional development funds 15% Municipality of Velenje
Koprivnica	Primary school "A.N. Gostovinski" – lighting system reconstruction	21.000 EUR	100% own sources (municipal budget)
	Open university Koprivnica, Domoljub odeum hall – New HVAC system	95.000 EUR	30% own sources and 70% national ministry
	Library „Fran Galovic“ and movie theatre „Velebit“ – heating system	20.000 EUR	100% own sources
	Continuous reconstruction of public lighting in the City of Koprivnica	130.000,00	100% own sources



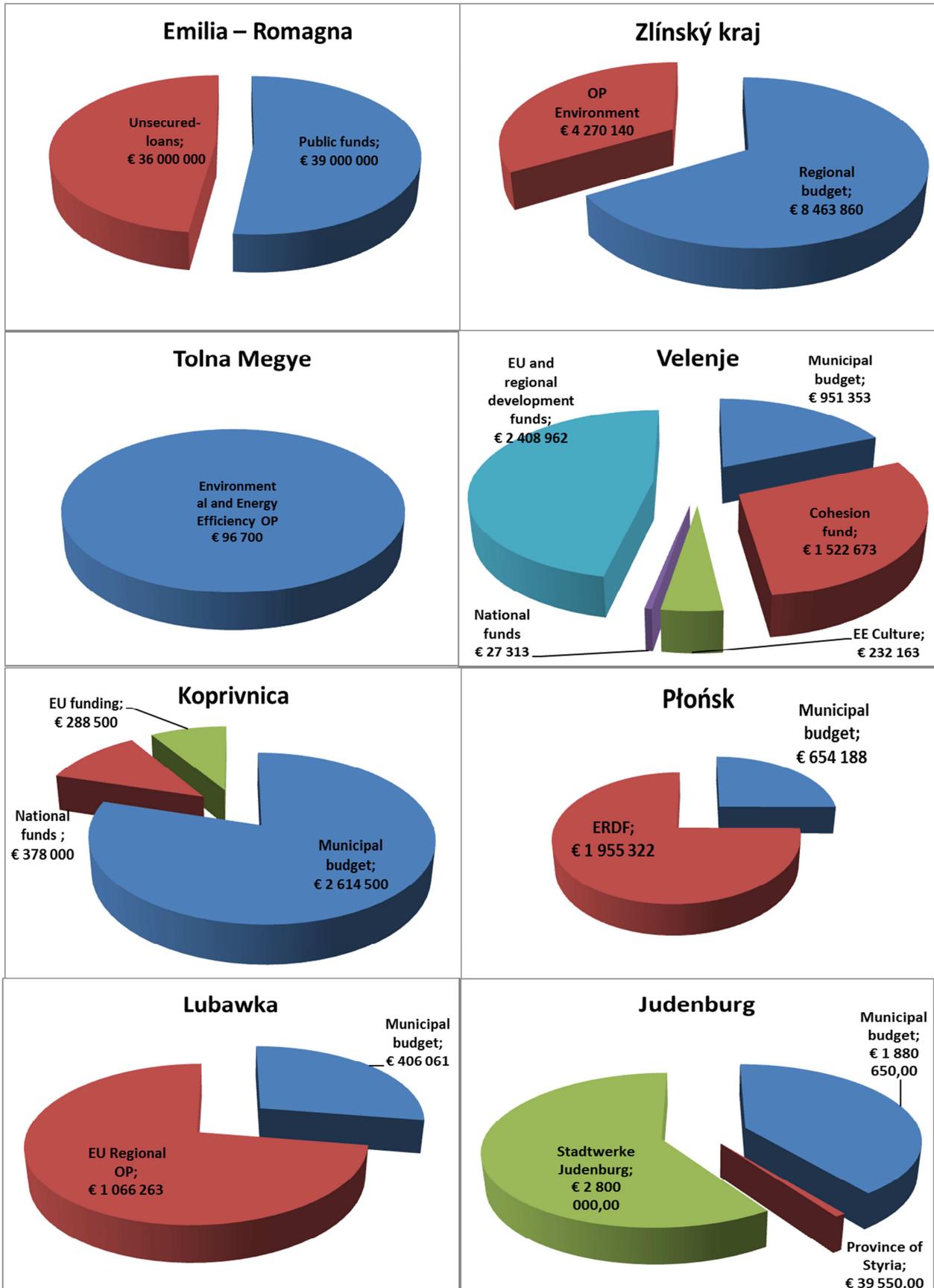
	Solar panels for preparation of hot water - kindergarten + institution of education and rehabilitation	15.000 EUR	60% own resources 40% national
	Reconstruction of KC poduzetnik - new façade, new windows, heating separators and PV plant	230.000 EUR	15% own sources and 85% national
	Partial reconstruction of Primary school "Brace Radic"	100.000 EUR	100% own sources
	Partial reconstruction of Community centre "Dom mladih"	130.000 EUR	100% own sources
	nZEB University building	2.000.000 EUR	100% own sources
	Smart metering in public buildings	10.000 EUR	15% own sources and 85% EU funding
	Bike sharing in the City of Koprivnica	200.000 EUR	15% own sources and 85% EU funding
	Electric car pool	130.000 EUR	33% own sources 33% national 33% EU funding
	Electric public transport	200.000 EUR	33% own sources 33% national co-financing 33% EU funding
Płońsk	Insulation of public facilities in Płońsk - Primary School No. 3 and Junior High School No. 1 in Płońsk and the adaptation of the former school in <i>Goszczyce Średnie</i>	417.202 EUR	30% Municipal budget 70% ERDF
	Insulation and purchase and assembly of solar collectors for the Municipal Sports and Recreation Center in Płońsk	913.636 EUR	30% municipal budget 70% EEA grants funds
	Improving the energy efficiency of public buildings in the Commune of the City of Płońsk - deep energy modernization of 4 public buildings	1.262.721 EUR	20% municipal budget 80% ERDF
	Low-Emission Economy Plan for the City of Płońsk	15.952,38 EUR	15% municipal budget 85% ERDF
Lubawka	Reconstruction, thermo-modernization of the Health Center building in Chełmsko Śl. (2013)	125.000 EUR	15% municipal budget 85% EU Regional OP
	Modernization of sanitary facilities, heating installation and boiler rooms in the Daycare Centre In Bukówka (2013)	15.000 EUR	50% municipal budget 50% EU Regional OP
	Modernization with the enlargement of the Public Schools Complex at. Mickiewicza St. 4 in Lubawka,	161.300 EUR	municipal budget



	stages V and VI (2014)		
	Purchase and installation of a steam boiler in the Public Schools Complex in Chełmsko Śląskie (2015)	2.890 EUR	municipal budget
	Reconstruction, thermo-modernization of the primary school building in Miskowice (2014-15)	139.300 EUR	25% municipal budget 75% EU Regional OP
	Increasing the energy efficiency of the building of the Public Schools Complex in Chełmsko Śląskie (2017)	708.250 EUR	18% municipal budget 82% EU Regional OP
	Improving conditions of primary and secondary education through building enlargement and reconstruction of the Public School Complex in Lubawka, 1st stage (2017-18) – heating system + hot water system	104.470 EUR	20% municipal budget 80% EU Regional OP
	Increasing energy efficiency of the historic City Hall building in Lubawka (2017-18)	216.115 EUR	15% municipal budget 85% EU Regional OP
Judenburg	Conversion of public lighting to LED technology - public lighting is gradually replaced with LED from 2016 to 2024. Figure is for 2016 – 2018.	230.000 EUR	100 % municipal budget
	Conversion of Christmas lighting to LED - 40 year old lightbulb Christmas lighting in inner city for new LED technology	220.000 EUR	100 % municipal budget
	Renovation of kindergartens Spielgasse, Strettweg, Jägersteig - windows, new lighting, e-installation	56.500 EUR	30% municipal budget 70% Province of Styria
	Renovations in kindergartens without funding	9.400 EUR	100 % municipal budget
	Primary school City and special needs school	26.400 EUR	100 % municipal budget
	Town hall: roof renovation	7.000 EUR	100 % municipal budget
	Primary school Lindfeld - Renovation of WCs, roof, lighting and heating system	66.500 EUR	100 % municipal budget
	Comprehensive and polytechnical school - Renovation of WCs, lighting and heating system, partial thermal insulation	65.000 EUR	100 % municipal budget
	Venue centre - Renovation of lighting, ventilation and heating system, partial thermal insulation and roof renovation	35.000 EUR	100 % municipal budget
	Sports hall Lindfeld - Renovation of WCs and heating system	4.400 EUR	100 % municipal budget
	Construction of a district heating grid (The 70% investment is from the Stadtwerke Judenburg, which is an ESCO, 100 % owned by the city)	4.000.000 EUR	30 % municipal budget, 70 % Stadtwerke



Putting information and figures into graphical form we get an interesting overview of sources of financing of EE projects partners regions have relied on in last 5 years:





While regions are mostly relying on own budgets, or in the case of Tolna County on funding from existing operational programmes, the municipalities has slightly more variable portfolio in EE projects financing.

In the case of Emilia-Romagna region an advanced way of EE financing supported by the region is used. They are so called “unsecured loans” which are closely described in the chapter 2.5 of this document - *Best Practice Factsheet #2 - Emilia-Romagna, Italy, Energy Fund - Multyscope Regional Fund of public financing.*

Municipalities, with the exception of Judenburg, are relying to some extent to existing sources from EU funds which is the logical way of EE project financing when such funds are available. However, to lower the dependence on this way of financing and decrease the threat of not achieving these grants in the future it would be advisable to consider more diverse ways of EE financing in newly developed strategies and financial roadmaps.

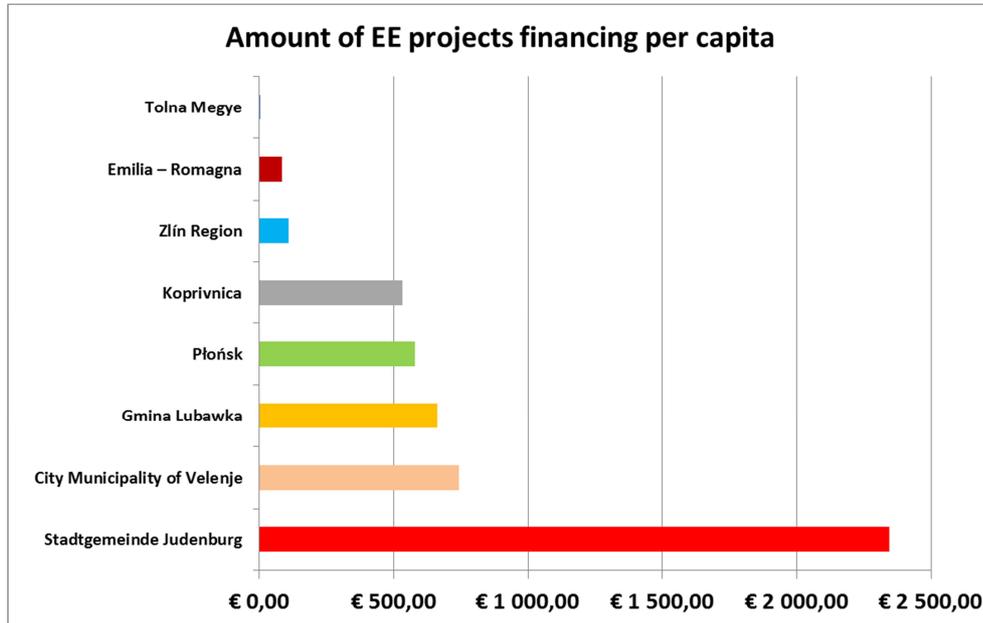
Overview of EE project financing in partners’ regions

Name of the region / area	(1) GDP per capita (2016)	(2) Amount of project EE financing	(3) Amount of project EE financing per capita	(4) Index of EE project financing to GDP per capita
Emilia – Romagna	€ 34 752	€ 75 000 000,00	€ 84,62	0,24%
Zlín Region	€ 14 479	€ 12 734 000,00	€ 109,02	0,75%
Tolna Megye	€ 8 566	€ 96 700,00	€ 2,18	0,03%
City Municipality of Velenje	€ 18 050	€ 5 142 467,00	€ 743,20	4,12%
Płońsk	€ 17 646	€ 2 609 511,38	€ 579,89	3,29%
Stadtgemeinde Judenburg	€ 35 948	€ 4 720 200,00	€ 2 345,32	6,52%
Koprivnica	€ 8 548	€ 3 281 000,00	€ 531,70	6,22%
Gmina Lubawka	€ 12 294	€ 1 472 325,00	€ 662,67	5,39%

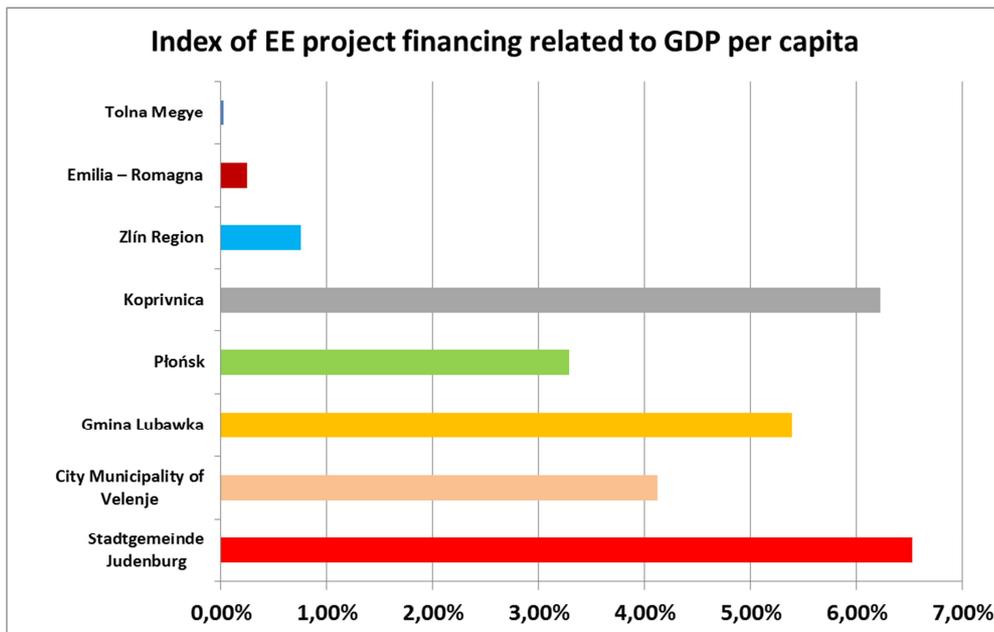
We can see a difference between regions and municipalities again. Municipalities are in general investing more in EE projects in relation to the population living in the area but we can see regions are investing to its own property some considerable amounts of money as well. Just with the exception of Tolna County as counties in Hungary only possess a few objects like cultural buildings or museums.



If we list the areas by the “Amount of project financing per capita”, we will get the following comparison:



Such a result reflects, more or less, the economic power of particular regions. However, we will get an interesting comparison of EE projects financing in partners’ regions when the economic power of each region is equalized with the help of the “Index of EE project financing related to GDP per capita” = column 3 / column 1 of the table above.



This graph reveals that municipalities relying more on its own municipal budgets (Koprivnica, Lubawka) are investing relatively more in EE projects than municipalities trying to maximize external EU funds (Velenje, Płońsk). This conclusion is not possible to generalize, yet, within compared areas it is valid. Judenburg still comes out from this indexation as the most EE investing area, however, its position is not so dominant as it seems without equalizing the economic power.



2.3 Comparison of the current funding mix matrix for EE financing (2017)

Funding mix matrix 2017	General fundraising	Core financing	Project funding	Programme funding	Summary
Emilia – Romagna	0	6 000 000	2 400 000	72 600 000	81 000 000
Zlín Region	0	175 080	112 040	5 090 000	5 377 120
Tolna Megye	0	0	96 700	9 407 000	867 296 700
City Municipality of Velenje	0	172 528	0	0	172 528
Płock	0	3 300 000	2 593 560	15 952	5 909 512
Stadtgemeinde Judenburg	0	722 300	532 900	0	1 255 200
Koprivnica	0	2 713 500	677 500	0	3 391 000
Gmina Lubawka	0	0	741 000	0	741 000

When analysing just one year in EE financing (unlike in the section 2.2 when 5 years period was considered and only for EE projects, EE services excluded) and taking into consideration all the data available in the section 2.2 we can unambiguously conclude that the way and amount of EE financing is considerably fluctuating from one year to another and is to a big extent depending on existing sources from Operational Programmes, namely in Hungary, the Czech Republic, Poland, Croatia and Slovenia.

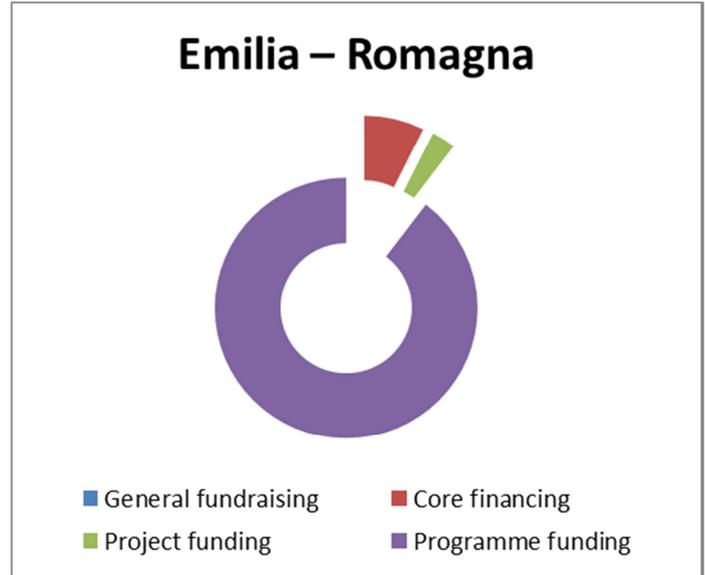
Italian and Austrian partners declare more stabilized situation either on regional level (Emilia-Romagna) or on municipal level (Judenburg).

Graphical illustration of actual yearly EE financing in particular regions and areas is following. This illustration and data provided are reflecting not only the classification by the purpose and temporality (general fundraising, project funding, core financing and programme funding) but also by the origin of these sources. However, when speaking about the origin of financial sources it is important to realise that category 'loan' and 'own sources' are many times overlapping as municipality/region normally allocates resources for EE financing on the level of overall regional/municipal budget as one item on the side of municipal planned costs while loans are resolved separately for the whole municipal/regional budget on the side of municipality incomes.



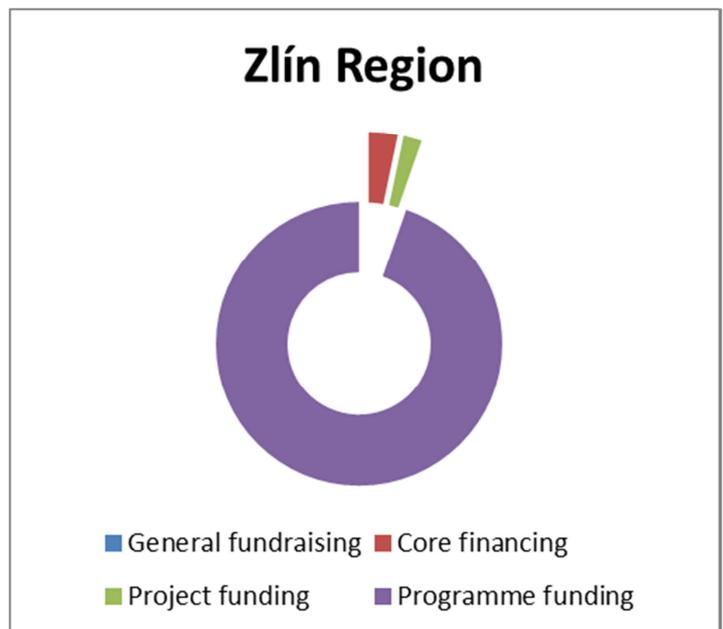
Emilia-Romagna

General fundraising		
own	External	loans
-	-	-
Project funding		
own	External	loans
1 800 000	600 000	0
75,00%	25,00%	0,00%
Core financing		
own	External	loans
6 000 000	0	0
100,00%	0,00%	0,00%
Programme funding		
own	External	loans
21 780 000	50 820 000	0
30,00%	70,00%	0,00%



Zlín Region

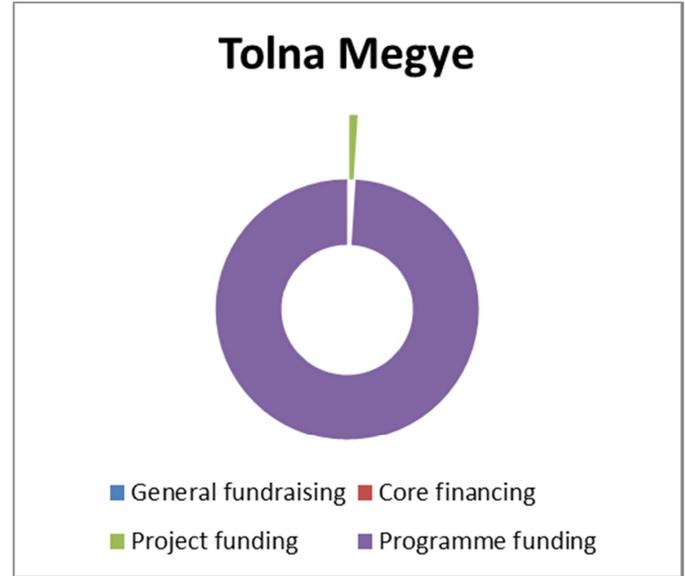
General fundraising		
own	External	loans
-	-	-
Project funding		
own	External	loans
	112 040,00	
	100,00%	
Core financing		
own	External	loans
175 080,00		
100,00%		
Programme funding		
own	External	loans
3 461 200	1 628 800,00	
68,00%	32,00%	





Tolna Megye

General fundraising		
own	external	loans
-	-	-
Core financing		
own	external	loans
-	-	-
Project funding		
own	external	loans
	96 700,00	
	100,00%	
Programme funding		
own	external	loans
9 407 000		
100,00%		



Velenje

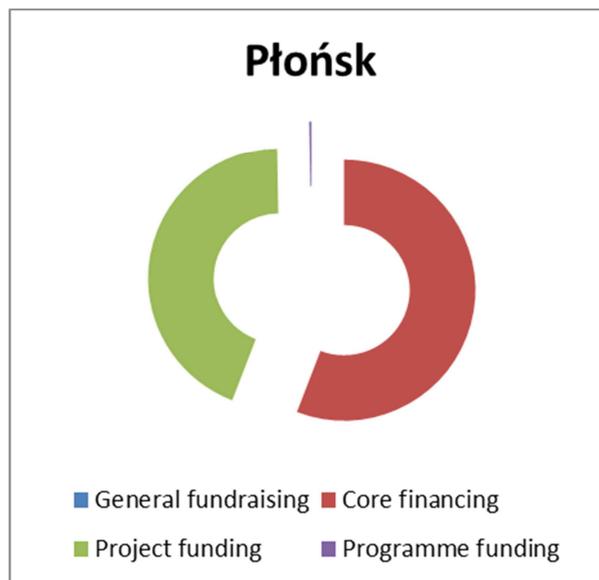
General fundraising		
own	external	loans
-	-	-
Core financing		
own	external	loans
	172 528	
	100,00%	
Project funding		
own	external	loans
-	-	-
Programme funding		
own	external	loans





Płońsk

General fundraising		
own	external	loans
Core financing		
own	external	loans
3 300 000		
n/a	n/a	n/a
Project funding		
own	external	loans
700 261	1 893 299	0
27,00%	73,00%	
Programme funding		
own	external	loans
2 393	13 559	
15,00%	85,00%	



Judenburg

General fundraising		
own	External	loans
-	-	-
Core financing		
own	External	loans
722 300		
100,00%		
Project funding		
own	External	loans
484 939	47 961	
91,00%	9,00%	
Programme funding		
own	External	loans
-	-	-





Koprivnica

General fundraising		
own	external	loans
Core financing		
own	external	loans
	2 713 500,00	
100,00%		
Project funding		
own	external	loans
	677 500,00	
	100,00%	
Programme funding		
own	external	loans



Lubawka

General fundraising		
own	external	loans
Core financing		
own	external	loans
Project funding		
own	external	loans
148 200	592 800	
20,00%	80,00%	
Programme funding		
own	external	loans
-	-	-



It is apparent on the first sight that two levels of governance are compared. While regions (Emilia Romagna, Zlín Region and Tolna County) are relying almost entirely on programme funding, municipalities are utilizing mainly core financing or project funding. The mutual share of the core financing and project funding at particular municipalities varies a lot which is depending mainly on actual external sources of funding available and it definitely will vary from year to year.

This reliance correlates with GDP per capita as the trend is – the lower the GDP per capita is the bigger reliance on external sources of EE financing funding is.

Judenburg, the municipality with the highest GDP per capita among analysed areas, almost entirely relies on own sources.



2.4 Existing experience in partners regions

When developing “Transnational EE financing strategy” as well as “EE financing roadmaps for partner areas” it is necessary to consider and analyse also existing policies, strategies. Following aspects were investigated in partners’ regions

- Availability of official EE financial strategy
- Indicative yearly budget for EE financing
- SWOT analysis in partners regions
- EE activities planned in upcoming periods
- Self-evaluation of effectiveness of different ways of financing
- Monitoring process of EE financing policy implementation

2.4.1 Availability of EE financial strategy

Upon information provided by partner regions each particular region has somehow outlined its own targets and ways of EE financing, however, not any partner has just separate EE financing strategy of EE financing roadmap developed in their region. They are always part of some other strategic documents

There are particular differences among partners; the most advanced in their EE financing strategies appear to be Emilia-Romagna and municipality of Judenburg, however, also other partner regions are dealing with these issues to some extent.

The basic overview of existing EE financing policy incorporated in strategies of partners’ areas:

Emilia – Romagna

EE financial strategy of Emilia-Romagna Region is part included in the Regional Energy Plan. Since 2007 ERR is adopting a Regional Energy Plan (REP). The last REP was officially approved and adopted the 1st march 2017.

The Regional Energy Plan sets the strategy and targets of Emilia-Romagna Region for energy and climate up to 2030, dealing with the enhancing of green economy, energy saving and efficiency, renewable energy development, transport, research, innovation and training.

The main financial instrument of the Regional Energy Plan (PER) is the ROP ERDF for the period 2014- 2020.

The more relevant axes of ROP as regards energy efficiency are:

- Axis 4 - Promotion of the low carbon economy in regions and in the production system
- Axis 3 - Production system competitiveness and attractiveness
- Axis 1 - Research and innovation



Zlín Region	EE financial strategy is partly outlined in the special section of Regional SEAP for 2015-2019 approved by the Council of the Zlín Region on 13th July 2015. This section is just an indicative outline of financial sources available for EE financing, not a detailed financial strategy.
Tolna Megye	<p>On county level there's no strategic document that is dedicated directly to EE, but several documents integrate EE aspects into their priorities and interventions;</p> <ul style="list-style-type: none"> • The Tolna County Regional Development Programme 2014-2020 was approved in Jun 2013 • The Tolna County Regional Development Concept gave baselines for the strategy, it was approved in Febr 2013. • The Climate Strategy of Tolna has been approved by the General Assembly in 2017. It gives guidelines for the adaption and mitigation actions planned for the next couple of years. • The Territorial and Settlement Development OP
City Municipality of Velenje	<p>There is not any particular EE financing strategy in the region, just some documents roughly outlining the ways of EE financing_</p> <ul style="list-style-type: none"> • Local energy concept (LEK), year of approval is 2004, updated in 2012 • SEAP , year of approval 2012 • Covenant of mayors, year of approval 2010
Płońsk	The City Municipality of Płońsk doesn't have the EE financial strategy and not any EE financial strategy for the region exists. Only some strategic plans for the city are available, for example the City Development Strategy which includes the main ecological investments and their financing.
Stadtgemeinde Judenburg	<p>Sustainable Energy Action Plan "Judenburg 2020" for municipality, approved in 2012</p> <p><u>Allocated budget structure</u></p> <ol style="list-style-type: none"> 1. Staff costs of the Municipality of Judenburg and Energy Agency (EAO) for the development of the action plan and key projects 2. Material costs for the implementation of environmental measures in Judenburg: 3. Staff costs for municipal staff for the realisation of planned measures (budget is included in the yearly municipal household) 4. plus additional project oriented investment budget of the town administration for extraordinary measures like sanitation of public buildings etc. (costs must be ascertained in the planning process) 5. plus project oriented costs for measures of the Energy Agency (EAO) and the Municipal Utilities (Stadtwerke Judenburg) <p><u>Foreseen financial sources for the investment within the action plan</u></p>



1. development of the action plan and key projects: financed by subsidies from the European Union / Programme IEE within the project eReNet (RURAL WEB ENERGY LEARNING NETWORK FOR ACTION) plus own funds of the Municipality of Judenburg and the Energy Agency Upper Styria (EAO)
- 2-3. Material and staff costs for the implementation of environmental measures in Judenburg: annual municipal household of the Municipality of Judenburg
4. financing of extraordinary measures like sanitation of public buildings etc.: individual authorization by the municipal council for each extraordinary measure
5. financing of projects of the Energy Agency (EAO) and the Municipal Utilities (Stadtwerke Judenburg): own funds of the institutions

Koprivnica

REA North has developed Sustainable Energy Action Plan (SEAP) for the City of Koprivnica in 2011. EE Financial Strategy as a document or one whole is not part of SEAP. However, SEAP contains energy EE measures in variety of sectors that have predicted value (investment cost) and other financial elements as well as potential sources of financing.

Gmina Lubawka

The Town and Municipality of Lubawka doesn't have a separate strategy for energy efficiency improvement and its financing, however, these issues have been addressed in several other strategic documents. They are:

- Low Emission Economy Plan for 2014-2020 with an outlook until 2030 for 15 municipalities of the Wałbrzych Agglomeration – Lubawka Municipality is one of the 15 municipalities covered by this Low Emission Economy Plan
- Lubawka Municipality Development Strategy 2017 – 2023
- Local Revitalization Program of Lubawka Municipality 2017-2022

In all cases above where some strategic documents were mentioned they were approved by the relevant municipal or regional council.



2.4.2 Indicative yearly budget for EE financing

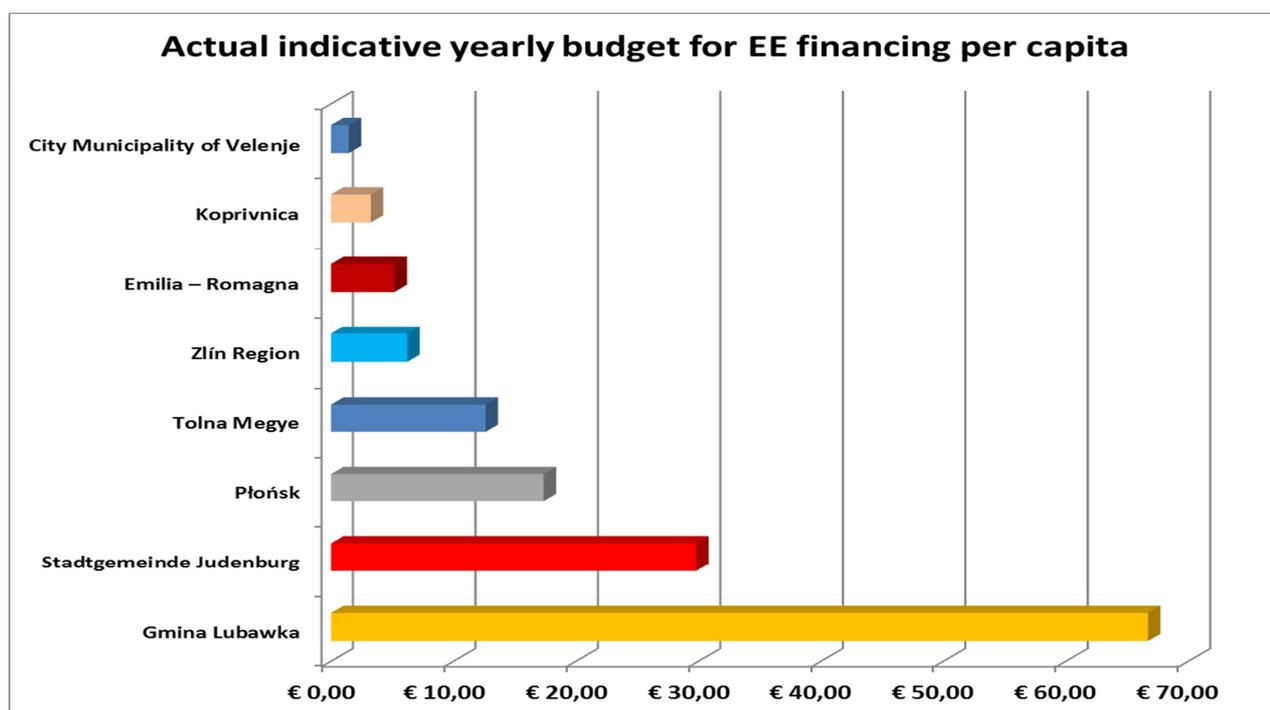
The table below is showing the picture of last available indicative amount of money dedicated to EE financing in partners' areas:

Name of the Region	Indicative yearly budget	Population	GDP per capita (2016)	Yearly EE budget per capita
Emilia – Romagna	€ 22 950 000,00	4 431 333	€ 34 752	€ 5,18
Zlín Region	€ 3 636 280,00	584 000	€ 14 479	€ 6,23
Tolna Megye	€ 2 800 000,00	221 799	€ 8 566	€ 12,62
City Municipality of Velenje*	€ 50 000,00	34 597	€ 18 050	€ 1,45
Płońsk	€ 390 607,85	22 500	€ 17 646	€ 17,36
Stadtgemeinde Judenburg	€ 300 000,00	10 063	€ 35 948	€ 29,81
Koprivnica**	€ 100 000,00	30 854	€ 8 548	€ 3,24
Gmina Lubawka***	€ 741 000,00	11 109	€ 12 294	€ 66,70

*Velenje: Other funds varies from year to year, depending on approved ongoing projects (national end EU)

**Koprivnica: Lowest annual budget is around 100.000 EUR and highest may be a few million EUR.

***Lubawka: Annual budget can range between several dozen thousand and a few million PLN depending on the scope of actions realized.



Taking into consideration actual indicative data for EE financing as well as observations obtained from previous chapters of this analysis it is possible to conclude that EE financing allocation in particular areas depends mainly on two basic factors:

- Availability of external funds (at best EU level)
- Regional/municipal timetable for major investments



The major investments are often adapted just to the external subsidies actually available. This situation opens the opportunity for partners’ regions to define better their plans just in the form of EE financing energy strategies and financial roadmaps in order to diversify and stabilise the sources for financing energy efficiency in their areas.

2.4.3 SWOT analysis in partners’ regions

BOSTEE-CE consortium partners have carried out SWOT analysis in their respective regions. The SWOT analysis was based upon the experience of partners as well as on a survey and questioning main target groups in order to address their needs – namely:

- Local public authorities
- Regional public authorities
- Sectoral agencies
- Infrastructure and (public) service providers
- Higher education and research sector
- Education/training centres and schools
- SMEs
- General public

The output of the SWOT analysis in each region is a comprehensive list of strengths, weaknesses, opportunities and threats reflecting particular partner’s situation, however, some common issues were identified for the majority or even all partners and these are summarised in the table below.

The whole comprehensive SWOT analysis per each partner region is enclosed separately to this document in the form of the excel file.

Internal and external conditions & environment for EE financial strategy development and implementation	
Strengths	Opportunities
<ul style="list-style-type: none"> - Experience in Energy planning at regional / local level - Availability of Regional Operation Programmes - Innovation related to technologies - Well-developed infrastructure - Increase in the number of companies interested in innovation - High number of municipal improvements - Availability of reliable district heating system / networks - The energy efficiency issues has been integrated into the regional / local development strategies - Regional / local agencies have been established with the aim of best practices 	<ul style="list-style-type: none"> - Opportunity to counteract rising energy costs - Improving level of innovation, development and modernisation in industrial sector - Maximal utilisation of EU funds - Exploitation of international loan programs for energetic purposes (e.g. ELENA) - Strengthening of international and cross border relations - Deployment of district heating networks - Systematic development of technologies enabling storage of surplus energy generated from RES. - Public sector sets a good example for other public and private infrastructure providers - Wide and competent network of national and EU partners



<p>exchange, facilitating / coordinating the procedures</p> <ul style="list-style-type: none"> - Good knowledge of EE behaviour of public buildings - Targeted Awareness-raising activities - Well-established cooperation between public sector and universities or development centres 	
Weaknesses	Threats
<ul style="list-style-type: none"> - Longtime of return from the initial investment - Indebted municipalities are unable to provide the downpayment/prefinancing of the energetic developments - The lack of interest by owners of rented apartments for energy renovation - Lack of municipal energetic professionals - Absence (or insufficient) of production capacity for waste management for energy purposes. - Sustainable energy projects are noticed too little by the general public - Lack of cooperation between economy and public administration - Lack of interest for challenging projects - Technical infrastructure partly requiring modernization 	<ul style="list-style-type: none"> - Shortage of private funds - Low energy prices have an effect on project payoff - Historical building refurbishment focused on energy savings is connected with very long payback period - The foreign price and supply trends have strong influence on the home market - Life cycle thinking is not widespread, each technology is recommended by few manufacturers - Complexity of energetic tender systems, slow payments - Lack of (pre)financing for investments in EE in public buildings - Unsuitable criteria for approved cofinancing of projects/actions - Significant decrease or lack of EU funding after 2020 - Conflict of interests of local energy producers and prosumers (including Cluster Partners) with large energy companies.

2.4.4 EE activities planned in upcoming periods

Partners were asked to outline their activities in EE financing for upcoming period. This overview serves just for better realization what activities need to be financed and thoroughly consideration of ways of their financing. The table below can serve also as an inspiration for partners both inside and outside BOOSTEE-CE consortium.

Emilia – Romagna	<p>In line with REP and ROP the EE activities will be focused on:</p> <ul style="list-style-type: none"> • EE in buildings and urban areas • Promotion of Renewable Energy Sources • EE in industry • Research and innovation
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Zlín Region	<p>Priority area 1: Support to energy management in the subjects of the Zlín Region</p> <p>Priority area 2: Support to efficient energy utilisation in the Zlín Region</p> <p>Priority area 3: Support to RES and non-conventional sources of energy</p> <p>Priority area 4: Increasing safety and reliability of energy supply in the Zlín Region</p>
Tolna Megye	<p>The energy efficiency investment' preparation and planning will be supported by the Recommendations of the County's Climate Strategy. The County and the Agency intends to support the adhesion of municipalities to the Covenant of Mayors and the elaboration of SECAPs.</p>
City Municipality of Velenje	<p>Renovation of public buildings (kindergartens and schools) according to ESCO model</p> <ul style="list-style-type: none"> • EE renovation within ongoing EU projects (BOOSTEE: E-Central, projects of local energy agency KSENA) • EE activities planned in Integrated Territorial Investments (ITI; in Slovenian language CTN): Cohesion funds-(EFRR-Regional development funds) for realization of selected projects on the topic of energy efficiency and sustainable development of cities - 3 public building are planned to be renovated
Płońsk	<ul style="list-style-type: none"> • Revitalization of the buildings located on the city square • Within the frames of "Płońsk energy cluster" CMOF foresees the development of the following documentation: <ul style="list-style-type: none"> - Energy balance for the Płońsk Energy Cluster. - Analysis of the conditions and potential for the development of distributed energy. - Estimation of the potential of RES energy production. - Energy efficiency improvement plan. - Energy management system (EMS) - Analysis and implementation of the management system; controlling and registering energy and media consumption, monitoring of energy efficiency indicators, among others in public buildings, in outdoor and street lighting systems, etc. This study can be treated as a basis for activities towards the construction of intelligent networks. - "Płońsk energy cluster" recommends conducting the continuous insulation of public utility buildings.
Stadtgemeinde Judenburg	<p>Conversion of heating systems from electric heating to district heating in town museum, primary school Judenburg-Stadt and Kaserngasse 22 (youth hostel, music school and other users)</p>
Koprivnica	<p>City is most probably going to focus on energy refurbishment of existing public buildings, especially schools, kindergartens and other buildings from educational sector.</p>
Gmina Lubawka	<ul style="list-style-type: none"> • Increasing the energy efficiency of the Kindergarten building at Dworcowa 27 in Lubawka • Increasing energy efficiency of the historic City Hall building in Lubawka • Revitalization of historical monuments, including historical urban layouts inhabited by socially excluded, economically and culturally people • Thermo-modernization of multi-dwelling buildings • Exchange coal heating in the municipality • Control of the raw material used as fuel



	<ul style="list-style-type: none"> • Modernization of a residential building in Lubawka (at Al. Wojska Polskiego St.) with EE improvement • Modernization of a residential building in Chełmsko Śl. (at Kamiennogórska St.) with EE improvement • Increasing energy efficiency of the historic City Hall building in Lubawka
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2.4.5 Self-evaluation of effectiveness of different ways of financing

Partner regions have carried out the self-evaluation of the ways of EE financing which is summarized in following table.

Which of the ways of financing energy efficiency investments do you consider the most effective?

Emilia – Romagna	<ol style="list-style-type: none"> 1. Own resources 2. EU funding 3. Loans / grants from national co-financing programs 4. Bank loans 5. Other (what?): private investments
Zlín Region	<ol style="list-style-type: none"> 1. Own resources 2. EU funding 3. Loans / grants from national co-financing programs 4. Bank loans 5. Other – EPC
Tolna Megye	<ol style="list-style-type: none"> 1. EU funding 2. ESCO financing 3. Loans / grants from national co-financing programs – completing EU funds 4. Bank loans 5. Own resources – very limited
City Municipality of Velenje	<ol style="list-style-type: none"> 1. EU funding 2. Loans / grants from national co-financing programs 3. Bank loans 4. Own resources 5. Other
Płońsk	<ol style="list-style-type: none"> 1. EU funding 2. Loans / grants from national co-financing programs 3. Bank loans 4. Own resources 5. Other
Stadtgemeinde Judenburg	<ol style="list-style-type: none"> 1. Loans / grants from national co-financing programs 2. Own resources



Koprivnica

While own funding provides the most independence when it comes to planning and realization of EE investments, other ways are more effective in terms of cost. EU funding (most often at 85% rate) is mostly used for financing staff and documentation (action plans, strategic documents, project designs etc.) with very rare investments into equipment and refurbishment. However, city does have great experience with EU funding of smart metering, electric cars and buses, energy refurbishments etc. At the same time grants from national co-financing programs are the most effective means of financing energy efficiency investments as they co-finance real investments (equipment, materials, work...) at substantial percentage and in high total amounts.

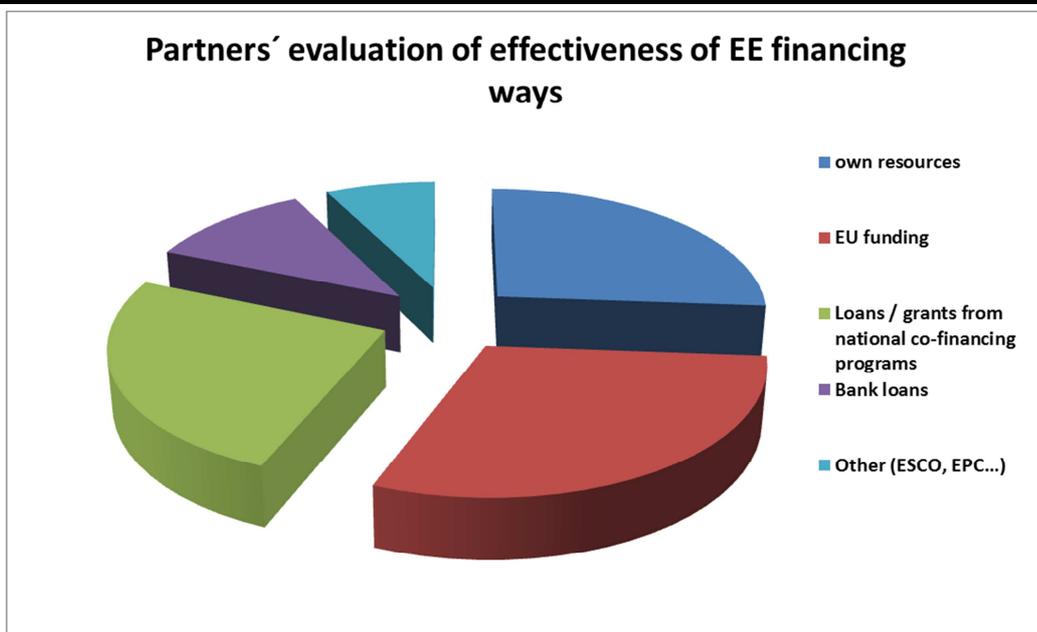
Gmina Lubawka

So far, in the Municipality of Lubawka EU funding has covered the majority of expenses for EE investments with own resources of the municipality playing the complementary role (forced by the rules of the EU Operational Programmes and partly financed from the bank loans). There is not much experience of financing energy efficiency in other ways.

On a basis of information provided we can create the “evaluation matrix of EE financing ways” and show graphically which ways of financing are considered to be the best.

Evaluation matrix of EE financing ways

	Emilia – Romagna	Zlín Region	Tolna Megye	Velenje	Płock	Judenburg	Koprivnica	Lubawka	Summary
Own resources	5	5	1	4	2	4	3	4	28
EU funding	4	4	5	5	5		4	5	32
Loans / national grants	3	3	3	4	4	5	5		27
Bank loans	2	2	2	3	3				12
Other (ESCO, EPC...)	1	1	4	1	1				8





The evaluation is relatively influenced by the existing experience on partners' side and their observations from projects and activities implemented. This situation creates the opportunity for awareness raising and introduction of other ways of EE financing which should be one of the roles of EE financing strategy and financial roadmaps developed further in BOOSTEE-CE project.

2.4.6 Monitoring process of EE financing policy implementation

Monitoring process of EE financing policy was explored as well with the focus on indicators that may serve as good examples of EE financing monitoring and evaluation. As there is not any particular EE financing strategy in partners' regions (chapter 2.4.1) neither are established monitoring processes dealing just with EE financing. However, partners are evaluating their strategies against chosen indicators that are introduced in the table below. Some of them are related just only to EE financing, some of them relate rather distantly.

Area	Monitoring indicators used
Emilia – Romagna	<ul style="list-style-type: none"> • Reduction on Industry Energy consumption GWh • Number of Companies receiving financial support Nr of Companies • GHG emission reduction Tons of equivalent CO2 • Energy Savings GWh • Additional Renewable energy power MW • Reduction of particular matter emission (PM10) Kg PM10 • Reduction of NOx emissions Kg NOx
Zlín Region	<ul style="list-style-type: none"> • Sources of funding identified • Number of applications developed • Number of advisory meetings aimed to providing information on sources of funding available
Tolna Megye	<ul style="list-style-type: none"> • The projects have to describe the expected volume of energy saving and related reduction of CO2 emissions. • Moreover the County may ask for information on the fulfilment of the actions of the SEAPs of those settlements, which has joined the CoM.
City Municipality of Velenje	<ul style="list-style-type: none"> • Yearly reports of realized activities within Local energy concept (reported to mayor and city council) • Yearly reports of realized activities within EU projects (reported to mayor and city council)
Płońsk	<ul style="list-style-type: none"> • Projects financed from external funding are monitored on a yearly basis. Evaluation is carried out using indicators from the projects, e.g. energy production from renewable energy sources, reduced emission of carbon dioxide, energy savings.
Stadtgemeinde Judenburg	<ul style="list-style-type: none"> • Energy accounting for public buildings with benchmark system (EBO) • Reporting to Covenant of Mayors • Audits in European Energy Award programme e5



Koprivnica	<ul style="list-style-type: none"> For many years City did not monitor and evaluate its EE policies as well as its implemented EE investments. This partially changed in 2011 (SEAP) and 2015 (set up of internal energy revolving fund) but also with effective use of National information system of energy mgmt. (ISGE). SEAP and revolving fund were developed by Regional Energy Agency North and approved by City Council where ISGE is supervised by Agency as well.
Gmina Lubawka	<ul style="list-style-type: none"> Degree of implementation of listed projects and tasks

2.5 Best practices and investments return models

Partners regions have collected the best practice examples from their countries on various financial investments return models through which market-enabling actions for large investments are highlighted. These best practices are presented and analysed on separate factsheets belonging to this document:

Best Practice Factsheet #1 - Zlín Region, Czech Republic

- Waste incinerator upgrade in Uherské Hradiště hospital – *case study of EE project with various scenarios with/without subsidy*

Best Practice Factsheet #2 - Emilia-Romagna, Italy

- Energy Fund - Multyscope Regional Fund of public financing

Best Practice Factsheet #3 Tolna County, Hungary

- Geothermal energy utilization and public utility installation at Tamási – *effective usage of own sources combined with the support from Operational Programmes*

Best Practice Factsheet #4 – Loški Potok, Slovenia

- Wood Cooperative Loški potok: District heating with wood biomass in Hrib center – *effective utilization of support from existing national fund combined with commercial loan*

Best Practice Factsheet #5 - Koprivnica, Croatia

- Reconstruction of boiler room plant in General County Hospital “Dr. Tomislav Bardek” Koprivnica – *investment return model without any external support*

Best Practice Factsheet #6 - Płock , Poland

- Reconstruction and extension of the tenement building – *project funded with the support of commercial loan*

Best Practice Factsheet #7 - Płońsk, Poland

- Modernization of the Heating System of Płońsk, combined generation of electricity and heat from biomass – *large investment with prevailing commercial loan as a source of financing*



Best Practice Factsheet #8 - Jelenia Góra, Poland

- KAWKA - liquidation of the local heat source fired with solid fuel - the city of Jelenia Góra – regional financing scheme including the support for individuals

Best Practice Factsheet #9 - Judenburg, Austria

- District heating grid based on waste heat from pulp&paper mill Zellstoff Pöls AG – *ESCO type of EE financing project in public sector*

Best Practice Factsheet #10 - Judenburg, Austria

- PV Installation as PPP model – *a functional public – private partnership based on mutual cooperation and cost sharing*

3. Conclusions

The provided document is the second step towards the elaborating “Transnational EE financing strategy” which will describe how to look for, find and adopt different financing solutions for energy efficiency improvement.

The financing strategy looks at:

- Current practise of financing of energy efficiency in different European regions
- Outline what the partners would like to achieve in three to five years period;
- What strategies need to be implemented to achieve energy efficiency targets
- How to achieve Financial sustainability by maintaining a diversified funding mix

Other important roles of the comparative analysis are

- Creating the idea how EE financing policy really works in each participating country and region
- Understanding common issues as well as differences in EE financing policies
- Comprehension of common principles of EE financing policy

These key outputs will help another key output of BOOSTEE-CE project which is the “Development of EE financing roadmaps for participating cities/municipalities”. This will be carried out in two steps:

1. Creating the Transnational methodological framework for a roadmap development
2. Elaboration of 7 EE financing roadmaps for public infrastructures in CE cities/municipalities



Logical framework of the development of EE financing strategies

