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IEE PROJECT CONURBANT

„AN INCLUSIVE PEER-TO-PEER APPROACH TO INVOLVE EU CONURBATIONS AND WIDE URBAN AREAS IN PARTICIPATING TO THE COVENANT OF MAYORS"

REPORT

on

SEAPs COLLECTION

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CONTENTS

EXECUTIVE SUMMARY

Within the frame of the CONURBANT project, 45 municipalities and towns over Europe joined Covenant of Mayors initiative, besides other 7 municipalities and towns that signed the adhesion before starting CONURBANT Project. The main driver force was the collective interest to find different paths to reduce local energy consumption improve living environment and reduce the CO_2 emissions in the different municipalities. In order to reach specific objective of Covenant of Mayors, i.e. at least 20% reduction of CO_2 emissions, Sustainable Energy Actions Plans (SEAPs) were developed in each municipality.
In order to develop qualitative SEAPs, series of specific activities, beginning with the support for the Conurbation towns, in view of preparing baseline emission inventory (BEI), organising energy forums and drafting SEAP were followed and implemented.
In total 52 SEAPs in 10 conurbation areas in 7 countries covering a population of more than 1,5 million inhabitants were developed. According to the SEAPs, they will deliver reduction of more than 2 million tonnes of CO_2 until 2020. More than 1.5 billion EURO will be needed in order to implement measures to reduce energy consumption.
Currently, 50 SEAPs have been officially approved with the decisions of the Local Councils. Thus the SEAPs have become a political commitment, an integral part of economic, social and environmental policies of the respective municipalities. Two SEAPs are under approval procedure.
The developed SEAPs focused mainly on those sectors identified as being responsible for the largest share of CO_2 emissions in the municipalities and which the local public authorities can implement: actions that might be undertaken to reduce CO_2 emissions, energy consumption and to use renewable energy sources. The residential sector has also been focused on as key sector in the development of the SEAPs.
In the SEAP development and implementation activities, aspects such communication, networking, citizen responsibility and involvement have been taken into account. At the same time, actions and measures concerning adaptation to climate changes effects have a distinct place in the set of actions within each SEAP. In this way, SEAP developed and the measures already implemented under the Project CONURBANT is a prerequisite for sustainable development of the cities and their conurbation towns, signatories to the Covenant of Mayors.
The report reviews the relevant aspects related to the SEAPs developed in all conurbation areas of CONURBANT Project, including specific aspects of long term visions, objectives, key sectors and targets, organizational and financial aspects, in strong connection to commitment undertaken by all partners, to achieve the major goals of the Europe 2020 Strategy, concerning “20/20/20 climate/energy targets”.

1. INTRODUCTION

The EU has a significant number of Municipalities that have started a path of sustainable energy action planning and policy-making and propose replicable good practices.
The CONURBANT project aims at helping medium-large cities from seven countries and the smaller towns in their urban area, through capacity building using peer to peer support and training between less and more experienced Municipalities, in the framework of the Covenant of Mayors (CoM).
This report on applied methodologies and project examples presents the methodologies used by CONURBANT Project partners in their respective countries and conurbations to develop the Sustainable Energy Action Plans (SEAPs) for municipalities and smaller towns. Concretely, the steps, methodologies applied in peer-to-peer approaches for SEAP development in Bulgaria, Cyprus, Croatia, Latvia, Italy, Romania and Spain will be described.
The report also illustrates best-practices implemented, lessons learned in the frame of this projects and measures implemented in the partner countries that might serve as models for other municipalities and conurbations developing their own SEAP.
The project partners either applied already existing methodologies for SEAP development or elaborated their SEAPs based on the JRC methodology or on an own methodology. Some project partners also used a combination of the JRC approach and their own methodology for SEAP development.

2. WHAT IS A SUSTAINABLE ENERGY ACTION PLAN ?

The Sustainable Energy Action Plan (SEAP) is a key document that shows how the Covenant signatory will reach its commitment by 2020. It uses the results of the Baseline Emission Inventory to identify the best fields of action and opportunities for reaching the local authority's CO_2 reduction target. It defines concrete reduction measures, together with time frames and assigned responsibilities, which translate the long-term strategy into action. Signatories commit themselves to submitting their SEAPs within the year following adhesion.
In The Covenant of Mayors concerns action at local level within the competence of the local authority. The SEAP should concentrate on measures aimed at reducing the CO_2 emissions and final energy consumption by end users.
The Covenant's commitments cover the whole geographical area of the local authority (town, city, region). Therefore the SEAP should include actions concerning both the public and private sectors. However, the local authority is expected to play an exemplary role and therefore to take outstanding measures related to the local authority's own buildings and facilities, vehicle fleet, etc. The local authority can decide to set the overall CO_2 emission reduction target either as "absolute reduction" or "per capita reduction".
The Outputs of CONURBANT Projects consist in the development of 40 Sustainable Energy Action Plans: 4 Conurbation towns in each partner territory (10 areas), with ca. 500.000 people involved.

3. THE NECESSARY STEPS FOR SUSTAINABLE ENERGY ACTION PLAN DEVELOPMENT

The development of the Sustainable Energy Action Plans requires the careful transition through certain stages of Actions and processes such as:

- **Gaining the commitment of politicians and staff of the public administration.** A recommendation of the experienced municipalities in the training process was to invest all the required time to reach this objective before starting to develop the plan.
- **Ensuring involvement of the stakeholders.**
- **Define the municipality vision** - critical to reach consensus on a general vision and on the consequent strategy. It is essential to overcome internal obstacles due to the lack of communication and collaboration among the different department of the Municipality.
- **Good communication** between the project manager and the coordinator from each coordinator from conurbation team. For this reason, to reach the proposed objectives, project management skills are necessary. Good external consulting support is sometimes recommended in order to obtain know-how.
- **Peer-to-peer approach in SEAP development;**
- **Concern to develop a realistic and specially adapted to the local situation SEAP;**
- **Concern to retain political interest for the climate issues**;
- Preoccupation for good decision on how to implement the SEAP, based to the specific of the municipality or Conurbation smaller town;

4. ENERGY PLANNING BACKGROUND IN EACH COUNTRY

BULGARIA

At the country level, the number of signatories to the Covenant of Mayors is 32 local authorities, 14 of which have already developed the Sustainable Energy Action Plans. Among them, within the frame of the CONURBANT Project a total of 6 mayors have signed the Covenant of Mayors memberships: all in Vratsa district and five of them have already developed SEAPs. They are involved in the development and implementation of sustainable energy policies

CROATIA

The Croatioan municipalities that have signed the Covenant of Mayors initiative are in total 56.
41 of these have submitted their SEAP.

CYPRUS

The municipalities from Cyprus that have signed the Covenant of Mayors initiative are in total 22.
15 of these have submitted their SEAP.

ITALY

The Italian municipalities that have signed the Covenant of Mayors initiative are in total 2.189.
1.357 of these have submitted their SEAP.

LATVIA

In August 2013 the Covenant of Mayors adhesion form has been signed by 19 local authorities in Latvia. Seven signatories have already developed Sustainable Energy Action Plans, e.g. Riga, Jēkabpils etc. Movement towards development of sustainable energy action plans in municipalities has started in Latvia. There are more and more municipalities interested to create energy plans for several reasons. One of the main purposes is to solve the problems with the district heating systems in municipalities. As today district heating is usually operated by the municipal company. The prices of the fuels are increasing and therefore also the tariff of the heat. Therefore municipalities are looking for solutions. The other motivation is the need to have energy plans in order to apply for EU funding in the next period (2014-2020). Though it has not been yet included, energy plans could become one of the mandatory requirements to apply for funding for energy projects in Latvia.
Within the framework of the CONURBANT project five local authorities signed the Covenant of Mayors adhesion form – Salaspils, Ogre, Lielvārde, Ķegums and Ikšķile. Salaspils, Ķegums and Ikšķile have approved and submitted their Sustainable Energy Action Plans to the office of CoM. In the meantime, SEAPs for Ogre and Lielvārde have been developed. The main obstacle is the fact that these two municipalities have to take serious action to reduce their CO_2 emissions. One of the actions proposed in their SEAPs is the fuel switch projects in district heating systems. The municipal district heating companies are not ready to approve such action.

ROMANIA

In Romania there isn't a real tradition in term of energy planning at local and regional level; only after starting of CoM initiative, several of local authorities have starting set up their local Sustainable Energy Action Plans.
At the country level, the number of signatories to the Covenant of Mayors is 65 local authorities. Among them, within the frame of the CONURBANT Project a total of 22 mayors have signed the Covenant of Mayors: 4 in Alba County, 5 in Arad and 16 in Timiş County. At national level, 41 municipalities, towns and smaller villages have already developed the Sustainable Energy Action Plans.
In the frame of CONURBANT Project, a number of 17 local authorities have developed their SEAPs and others 8 are under preparation. These smaller towns together with Alba Iulia, Arad and Timişoara Municipalities form their conurbations are involved in the development and implementation of sustainable energy policies.

SPAIN

The municipalities from Spain that have signed the Covenant of Mayors initiative are in total 1,459.
1,023 of these have submitted their SEAP.

5. REPORT ON SUSTAINABLE ENERGY ACTION PLAN - DEVELOPMENT OF SEAPs IN EACH CONURBATION PARTNER AREA

BULGARIA

MUNICIPALITY OF VRATSA

DEVELOPMENT OF SEAPs IN VRATSA CONURBATION AREA

Number of towns signatories of Covenant of Mayors in the frame of CONURBANT Project	1. Municipality of Vratsa – signed the Covenant of Mayor Adhesion form on 22.08.2011 2. Municipality of Mezdra – signed the Covenant of Mayor Adhesion form on 04.08.2011 3. Municipality of Mizia – signed the Covenant of Mayor Adhesion form on 29.07.2011 4. Municipality of Kozloduy – signed the Covenant of Mayor Adhesion form on 26.07.2011 5 Municipality of Oryahovo – signed the Covenant of Mayor Adhesion form on 15.12.2011 6. Municipality of Krivodol – signed the Covenant of Mayor Adhesion form on 19.08.2011
Number of BEI realized in the frame of CONURBANT Project	1. Municipality of Vratsa 2. Municipality of Mezdra 3. Municipality of Mizia 4. Municipality of Kozloduy 5 Municipality of Oryahovo 6. Municipality of Krivodol
Number of SEAPs developed	1. Municipality of Vratsa 2. Municipality of Mezdra 3. Municipality of Mizia 4. Municipality of Kozloduy 5 Municipality of Oryahovo 6. Municipality of Krivodol
Number of SEAPs approved by local councils	1. Municipality of Vratsa (Decision 502 from 25.06.2013) 2. Municipality of Mezdra (Decision 323 from 25.04.2013) 3. Municipality of Kozloduy (Decision 230 from 26.02.2013) 4. Municipality of Mizia (Decision 245 from 22.05.2013) 5. Municipality of Oryahovo (Decision 402 from 30.05.2013) 6. Municipality of Krivodol (Decision 310 from 05.07.2013)
Number of SEAPs submitted via on-line submission system available on CoM official webpage	1. Municipality of Vratsa 2. Municipality of Mezdra 3. Municipality of Mizia 4. Municipality of Kozloduy 5 Municipality of Oryahovo 6. Municipality of Krivodol

CROATIA

MUNICIPALITY OF OSIJEK
DEVELOPMENT OF SEAPs IN OSIJEK CONURBATION AREA

Number of towns signatories of Covenant of Mayors in the frame of CONURBANT Project	5 Municipalities 1. City of OSIJEK – signed Covenant of Mayors Adhesion form on 6/12/2011 2.Town of BELI MANASTIR - signed Covenant of Mayors Adhesion form on 24/4/2012 3.Town of BELIŠĆE - signed Covenant of Mayors Adhesion form on 22/3/2012 4.Town of DONJI MIHOLJAC - signed Covenant of Mayors Adhesion form on 20/6/2012 5.City of VINKOVCI - signed Covenant of Mayors Adhesion form on 5/6/2012
Number of BEI realized in the frame of CONURBANT Project	1.OSIJEK 2.BELI MANASTIR 3.BELIŠĆE 4.DONJI MIHOLJAC 5.VINKOVCI
Number of SEAPs developed	1.OSIJEK 2.BELI MANASTIR 3.BELIŠĆE 4.DONJI MIHOLJAC 5.VINKOVCI
Number of SEAPs approved by local councils	1.OSIJEK 2.BELI MANASTIR 3.BELIŠĆE 4.DONJI MIHOLJAC 5.VINKOVCI
Number of SEAPs submitted via on-line submission system available on CoM official webpage	1.OSIJEK 2.BELI MANASTIR 3.BELIŠĆE 4.VINKOVCI 5.DONJI MIHOLJAC

CYPRUS

MUNICIPALITY OF LIMASSOL
DEVELOPMENT OF SEAPs IN LIMASSOL CONURBATION AREA

Number of towns signatories of Covenant of Mayors in the frame of CONURBANT Project	Limassol Municipality and 3 smaller Conurbation Towns: 1. LIMASSOL – signed the Covenant of Mayor Adhesion form on 06.09.2011 2. KATO POLEMIDIA – signed the Covenant of Mayor Adhesion form on 05.10.2011 3. YERMASOYIA – signed the Covenant of Mayor Adhesion form on 17.01.2013 4. MESA YITONIA – signed the Covenant of Mayor Adhesion form on 10.07.2012
Number of BEI realized in the frame of CONURBANT Project	1.LIMASSOL 2.KATO POLEMIDIA 3.YERMASOYIA 4.MESA YITONIA
Number of SEAPs developed	1.LIMASSOL 2.KATO POLEMIDIA 3.YERMASOYIA 4.MESA YITONIA
Number of SEAPs approved by local councils	1.LIMASSOL 2.KATO POLEMIDIA 3.YERMASOYIA 4.MESA YITONIA
Number of SEAPs submitted via on-line submission system available on CoM official webpage	1.LIMASSOL 2.KATO POLEMIDIA 3.YERMASOYIA 4.MESA YITONIA

ITALY

MUNICIPALITY OF VICENZA AND PADOVA

DEVELOPMENT OF SEAPs IN VICENZA AND PADOVA CONURBATION AREA

Number of towns signatories of Covenant of Mayors in the frame of CONURBANT Project	Municipality Vicenza and the other smallers Conurbation Towns 1. VICENZA, signed the Covenant of Mayor Adhesion form on 16.11.2011 2. ARCUGNANO (VI) signed the Adesion form in 24.05.2012 3. CREAZZO (VI) signed the Covenant of Mayor Adhesion form on 17.10.2013 4. SOVIZZO (VI) signed the Adesion form in 27.05.2010 5. MONTICELLO CONTE OTTO (VI) signed the Covenant of Mayor Adhesion form on 14.03.2012 6. DUE CARRARE (PD) signed the Adesion form in 28.04.2014 7. RUBANO (PD) signed the Adesion form in 29.09.2009 8. PONTE SAN NICOLÒ (PD) signed the Covenant of Mayor Adhesion form on 28.06.2013 9. VIGONZA (PD) signed the Adesion form in 20.03.2013
Number of BEI realized in the frame of CONURBANT Project	1. VICENZA 2. ARCUGNANO (VI) 3. CREAZZO (VI) 4. SOVIZZO (VI) 5. MONTICELLO CONTE OTTO (VI)
Number of SEAPs developed	1. VICENZA 2. MONTICELLO CONTE OTTO (VI) 3. RUBANO (PD) 4. SOVIZZO (VI) 5. PONTE SAN NICOLÒ (PD) 6. ARCUGNANO (VI) 7. VIGONZA (PD) 8. CREAZZO (VI) 9. DUE CARRARE (PD)
Number of SEAPs approved by local councils	1. VICENZA 2. MONTICELLO CONTE OTTO (VI) 3. RUBANO (PD) 4. SOVIZZO (VI) 5. PONTE SAN NICOLÒ (PD) 6. ARCUGNANO (VI) 7. VIGONZA (PD) 8. CREAZZO (VI)
Number of SEAPs submitted via on-line submission system available on CoM official webpage	1. VICENZA 2. MONTICELLO CONTE OTTO (VI) 3. RUBANO (PD) 4. SOVIZZO (VI) 5. PONTE SAN NICOLÒ (PD) 6. ARCUGNANO (VI) 7. VIGONZA (PD) 8. CREAZZO (VI)
Number of SEAPs submitted via on-line submission system available on CoM official webpage	1. VICENZA 2. MONTICELLO CONTE OTTO (VI) 3. RUBANO (PD) 4. SOVIZZO (VI) 5. PONTE SAN NICOLÒ (PD) 6. ARCUGNANO (VI) 7. VIGONZA (PD) 8. CREAZZO (VI)

LATVIA

MUNICIPALITY OF SALASPILS

DEVELOPMENT OF SEAPs IN SALASPILS CONURBATION AREA

Number of towns signatories of Covenant of Mayors in the frame of CONURBANT Project	SALASPILS and 4 Conurbation Towns and Municipalities 1. SALASPILS – signed the Covenant of Mayor Adhesion form on 31/08/2011 2. IKŠĶILE – signed the Covenant of Mayor Adhesion form on 30/11/2011 3. ĶEGUMS – signed the Covenant of Mayor Adhesion form on 11/01/2012 4. LIELVĀRDE – signed the Covenant of Mayor Adhesion form on 28/12/2011 5. OGRE – signed the Covenant of Mayor Adhesion form on 22/12/2011
Number of BEI realized in the frame of CONURBANT Project	1. SALASPILS 2. IKŠĶILE 3. ĶEGUMS 4. LIELVĀRDE 5. OGRE
Number of SEAPs developed	1. SALASPILS 2. IKŠĶILE 3. ĶEGUMS 4. LIELVĀRDE 5. OGRE
Number of SEAPs approved by local councils	1. SALASPILS 2. ĶEGUMS 3. IKŠĶILE 4. LIELVĀRDE 5. OGRE
Number of SEAPs submitted via on-line submission system available on CoM official webpage	1. SALASPILS 2. ĶEGUMS 3. IKŠĶILE 4. OGRE 5. LIELVĀRDE

ROMANIA

MUNICIPALITY OF ALBA IULIA

DEVELOPMENT OF SEAPs IN ALBA IULIA CONURBATION AREA

Number of towns signatories of Covenant of Mayors in the frame of CONURBANT Project	ALBA IULIA - 4 Conurbation Towns: 1.BERGHIN – signed the Covenant of Mayor Adhesion form on 17.05.2012; 2.CIUGUD - signed the Covenant of Mayor Adhesion form on 23.05.2012; 3.IGHIU – signed the Covenant of Mayor Adhesion form on 06.09.2012; 4.SÎNTIMBRU – signed the Covenant of Mayor Adhesion form on 31.05.2012;
Number of BEI realized in the frame of CONURBANT Project	1.BERGHIN 2.CIUGUD 3.IGHIU 4.SÎNTIMBRU
Number of SEAPs developed	1.BERGHIN 2.CIUGUD 3.IGHIU 4.SÎNTIMBRU
Number of SEAPs approved by local councils	1.BERGHIN – 23.05.2013; 2.CIUGUD – 17.05.2013; 3.IGHIU – 28.06.2013; 4.SÎNTIMBRU – 28.05.2013;
Number of SEAPs submitted via on-line submission system available on CoM official webpage	1.BERGHIN 2.CIUGUD 3.IGHIU 4.SÎNTIMBRU

MUNICIPALITY OF ARAD
DEVELOPMENT OF SEAPs IN ARAD CONURBATION AREA

Number of towns signatories of Covenant of Mayors in the frame of CONURBANT Project	ARAD MUNICIPALITY and 4 smaller Conurbation Towns: 1. ARAD - signed the Covenant of Mayor Adhesion form on 17.06.2010 2. SÂNTANA– signed the Covenant of Mayor Adhesion form on 20.09.2011 3. NĂDLAC– signed the Covenant of Mayor Adhesion form on 19.10.2011 4. LIPOVA– signed the Covenant of Mayor Adhesion form on 28.10.2011 5. PECICA– signed the Covenant of Mayor Adhesion form on 24.11.2011
Number of BEI realized in the frame of CONURBANT Project	1. ARAD 2. SÂNTANA 3. NĂDLAC 4. LIPOVA 5. PECICA
Number of SEAPs developed	1. ARAD 2. SÂNTANA 3. NĂDLAC 4. LIPOVA 5. PECICA
Number of SEAPs approved by local councils	1. ARAD 2. SÂNTANA 3. NĂDLAC 4. LIPOVA 5. PECICA
Number of SEAPs submitted via on-line submission system available on CoM official webpage	1. ARAD 2. SÂNTANA 3. NĂDLAC 4. LIPOVA 5. PECICA

MUNICIPALITY OF TIMIŞOARA
DEVELOPMENT OF SEAPs IN TIMIŞOARA CONURBATION AREA

Number of towns signatories of Covenant of Mayors in the frame of CONURBANT Project	16 – Timisoara Conurbation consist on 16 smaller Conurbation Towns 1. BUCOVĂŢ – signed the Covenant of Mayor Adhesion form on 25.11.2011 2. CĂRPINIŞ – signed the Covenant of Mayor Adhesion form on 30.11.2011. 3. DUDEŞTII NOI – signed the Covenant of Mayor Adhesion form on 14.11.2011. 4. DUMBRĂVIŢA – signed the Covenant of Mayor Adhesion form on 17.02.2012. 5. GHIRODA – signed the Covenant of Mayor Adhesion form on 26.10.2011. 6. GIARMATA – signed the Covenant of Mayor Adhesion form on 30.11.2011. 7. GIROC – signed the Covenant of Mayor Adhesion form on 30.11.2011. 8. JIMBOLIA – signed the Covenant of Mayor Adhesion form on 24.11.2011. 9. MOŞNIŢA NOUĂ – signed the Covenant of Mayor Adhesion form on 14.11.2011. 10. ORŢIŞOARA – signed the Covenant of Mayor Adhesion form on 16.12.2011. 11. PECIU NOI – signed the Covenant of Mayor Adhesion form on 17.11.2011. 12. PIŞCHIA – signed the Covenant of Mayor Adhesion form on 28.11.2011. 13. REMETEA MARE – signed the Covenant of Mayor Adhesion form on 14.11.2011. 14. SÂNANDREI – signed the Covenant of Mayor Adhesion form on 29.11.2011. 15. SÂNMIHAIU ROMÂN – signed the Covenant of Mayor Adhesion form on 02.11.2011 16 ŞAG – signed the Covenant of Mayor Adhesion form on 31.10.2011.
Number of BEI realized in the frame of CONURBANT Project	1. BUCOVĂŢ 2. CĂRPINIŞ 3. DUDEŞTII NOI 4. DUMBRĂVIŢA 5. GHIRODA 6. GIARMATA 7. GIROC

	8. JIMBOLIA 9. MOŞNIȚA NOUĂ 10. ORȚIŞOARA 11. PECIU NOI 12. PIŞCHIA 13. REMETEA MARE 14. SÂNANDREI 15. SÂNMIHAIU ROMÂN 16 ŞAG
Number of SEAPs developed	1. BUCOVĂȚ 2. GHIRODA 3. GIARMATA 4. GIROC 5. PECIU NOU 6. REMETEA MARE 7. SÂNMIHAIU ROMÂN 8 ŞAG 9. CĂRPINIŞ – in progress 10. DUDEŞTII NOI – in progress 11. DUMBRĂVIȚA – in progress 12. JIMBOLIA – in progress 13. MOŞNIȚA NOUĂ – in progress 14. ORȚIŞOARA – in progress 15. PIŞCHIA – in progress 16. SÂNANDREI – in progress
Number of SEAPs approved by local councils	1. BUCOVĂȚ – Local Council Decision no.32/08.08.2013 2. GHIRODA – Local Council Decision no.84/22.07.2013. 3. GIARMATA – Local Council Decision no.113/27.11.2013 4. GIROC – Local Council Decision no.149/29.11.2013 5. PECIU NOU – Local Council Decision no. 125/24.07.2013 6 REMETEA MARE – Local Council Decision no.21/12.08.2013 7. SÂNMIHAIU ROMÂN – Local Council Decision no.105/29.07.2013 8. ŞAG – Local Council Decision no.28/23.07.2013
Number of SEAPs submitted via on-line submission system available on CoM official webpage	1. BUCOVĂȚ 2. GHIRODA 3. GIARMATA 4. GIROC 5. PECIU NOU 6. REMETEA MARE 7. SÂNMIHAIU ROMÂN 8 ŞAG

MUNICIPALITY OF PALMA DE MALLORCA
DEVELOPMENT OF SEAPs IN PALMA DE MALLORCA CONURBATION AREA

Number of towns signatories of Covenant of Mayors in the frame of CONURBANT Project	1. CALVIÀ signed the Covenant of Mayor Adhesion form on 24.11.2011. All other conurbation towns (including Palma) signed CoM before CONURBANT project start. -PALMA DE MALLORCA - signed the Covenant of Mayor Adhesion form on 22.12.2010. -ESPORLES signed the Covenant of Mayor Adhesion form on 24.02.2011. -PUIGPUNYENT signed the Covenant of Mayor Adhesion form on 29.11.2009. -ANDRATX signed the Covenant of Mayor Adhesion form on 31.03.2011. -SANTA MARIA DEL CAMÍ signed the Covenant of Mayor Adhesion form on 28.01.2010.
Number of BEI realized in the frame of CONURBANT Project	1. PALMA DE MALLORCA 2. ESPORLES The rest of Conurbation town finished BEI, before the Conurbant project started.
Number of SEAPs developed	1. PALMA DE MALLORCA 2. CALVIÀ 3. ESPORLES 4. PUIGPUNYENT 5. ANDRATX 6. SANTA MARIA DEL CAMÍ
Number of SEAPs approved by local councils	1. ANDRATX 2. PUIGPUNYENT 3. ESPORLES 4. CALVIÀ 5. SANTA MARIA DEL CAMÍ
Number of SEAPs submitted via on-line submission system available on CoM official webpage	1. CALVIÀ 2. PUIGPUNYENT 3. SANTA MARIA DEL CAMÍ 4. ESPORLES 5. ANDRATX

6. SUMMARY ON SEAPs DEVELOPMENT

BULGARIA:
VRATSA CONURBATION SEAPs IN FIGURES

Conurbation Town/ Municipality	Population	BEI year:	Final energy consumption (MWh)	CO2 emissions: (tones)	CO2 emission reduction target by 2020	CO2 Proposed reduction (tones)	Budget EURO
VRATSA	74,648	2010	310,720.99	211,991.93	25%	52,998	210,081,465
MEZDRA	23,982	2005	64,992.95	52,120.52	25%	15,420.32	12,180,286
MIZIA	8,365	2010	17,031.104	13,673.40	20%	10,391.51	19,520,000
KOZLODUY	22,269	2008	96,140.46	40,549.03	104%	42,324	47,188,874
ORYAHOVO	13,733	2009	38,292.55	28,249.16	20%	5,604.23	1,610,199
KRIVODOL	10,460	2009	1,534.62	952.33	20%	190,47	4,529,586
TOTAL:	**153,457**		**528,712.674**	**347,536.37**		**126,928.53**	**295,110,410**

1. MUNICIPALITY OF VRATSA

Conurbation:	**VRATSA CONURBATION**
Municipality:	**MUNICIPALITY OF VRATSA**
Population:	**Number of population in 2012: 71,707 inhabitants;**
BEI year:	**2010**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 310,720.99 MWh / CO_2 emissions: 211,991.9289 to.;**
Details related to the public dabate on SEAP	It was made a local forum on 14.06.2013 with the participants of the administration, municipal council, citizens, media representatives, NGOs
Approval of SEAP by local authority	The Sustainable Energy Action Plan was approved by the Municipal Council-Vratsa with Decision № 502 from **25.06.2013** Direct link to the website of the local authority where you can find the decision approving the SEAP- http://www.vratza.bg/?category=3&sub=454
Overall CO_2 emission reduction target by 2020	**25 % by 2020** **Absolute reduction**
Long-term vision of the local	The strategic objective of the SEAP is in 2020 Vratsa to become a municipality of effective and sustainable management of energy resources and green economic growth, offering high quality services to the population, healthy and affordable living environment, real prospects for business investment. Achieving the goal will be realized primarily by reducing energy costs and carbon emissions by respectively: Implementing an integrated package of measures to improve the energy efficiency of public buildings, improving energy efficiency in buildings in the municipality; Increasing energy efficiency in the domestic industry, the introduction of energy management in the municipality. Besides improving the heat transfer characteristics of the buildings provides the fuel switch for local heating systems, expansion of the heating network and the introduction of local renewable energy (mainly solar, photovoltaic, geothermal, biomass). Possible obstacles to the realization of the plan related to attracting homeowners to implement energy efficiency measures, where the main reserve for energy savings, the high cost of new technologies, so that their use will be limited. A significant measure, although it seems implied, is Public urban areas, creating pedestrian and bicycle trails, which will reduce the use of motor vehicles. The latter combined with the improved public transport will lead to further limit carbon emissions
Objectives, targets:	Priority 1: construction and development of sustainable urban environment Objective 1.1 Energy efficiency improvement in the public infrastructure Objective 1.2: Improving and increasing the green system

	Objective 1.3: Energy efficiency improvement in the private sector Objective 1.4: Increasing efficiency of street lighting Objective 1.5: Gasification of Vratsa Priority 2: Utilization of the potential of renewable energy sources Objective 2.1: Reduce power consumption of municipal buildings using RES and implementation of energy efficient measures Objective 2.2: Promoting the use of renewable energy in housing the municipal territory Objective 2.3: Promote the use of renewable energy sources in enterprises to at the municipal territory Objective 2.4: Promote business and attract investors to construction of RES installations the territory of Vratsa Priority 3: Development of sustainable transport in municipality Objective 3.1: Organize information campaigns for sustainable transport Objective 3.2. Construction of bicycle lanes and public parking Objective 3.3: Reduce emissions and fuel consumption in municipal transport Priority 4: Support for local energy management Objective 4.1. Increase the capacity of local authorities in EE and RES Objective 4.2: Creation of information point raising awareness of citizens on EE & RES Objective 4.3: Support awareness of business for EE and RES	
SEAP actions in key sectors:	MUNICIPAL	MUNICIPAL BUILDINGS, EQUIPMENT, FACILITIES: Action 1. Energy audits of buildings, municipal ownership - 60 pieces audits. Action 2. Reconstruction, maintenance and implementation of energy efficiency measures in educational institutions - kindergartens, primary and secondary schools Action 3. Utilization and development of the territory of the former military base for the construction of a public area with cultural, recreational and sports facilities, recreational facilities and activities. Action 4. Renovation and implementation of energy efficiency measures in the building of the former school "Metropolit Konstantin" for the new center - European Geopark "Vratsanski Balkan". Action 5. Reconstruction, maintenance and implementation of energy efficiency measures of cultural centers, theaters, community centers, libraries and other facilities related to the cultural life Action 6. Construction, reconstruction, maintenance and implementation of energy efficiency measures in public buildings Action 7. Reconstruction, maintenance and implementation of energy efficiency measures in health facilities Action 8. Increasing the energy efficiency of "Covered athletics track to Sports Complex "Hristo Botev "- Vratsa. Action 9. Construction of public green area in housing estate "Dabnika" Action 10. Rehabilitation and renovation of public park "Hijata"; Action 11. Construction of park zone in the region of Medkovsko dere from the Boulevard "Vtori Yuni" to "Vasil Kanchov". Action 12. Reconstruction of the central pedestrian zone; Action 13. Rehabilitation of green areas in the industrial zone - Reconstruction of pedestrian and bike trails, energy efficient lighting, planting; Action 14. Improvement of spaces between apartment buildings. Action 15. Creation of a network of gasification; Action 16. Connecting customers to the network. Costs: 66,598,365 EURO; Estimated CO2 reduction target: 3,104 to.; MUNICIPAL PUBLIC LIGHTING: Action 1. Preparation and implementation of a project for the repair of the existing and construction of new energy efficient street

		lighting; Action 2. Gradual establishment an autonomously energy efficient street lighting in problem neighborhoods and sections; Action 3. Development of effective systems for maintenance and exploitation of street lighting, including with the participation of citizens. Costs: 2,000,000 EURO; Estimated CO2 reduction target: 119 to;
	RESIDENTIAL	Action 1. Perform audits for energy efficiency of residential buildings in the municipality; Action 2. Introduction of packages of energy efficiency measures in residential buildings in the municipality, and primarily of multi-family residential buildings; Action 3. Development and implementation of local financial mechanisms to support the implementation of energy efficiency measures in residential buildings. Costs: 4,500,000 EURO; Estimated CO2 reduction target: 11,822 to;
	TERTIARY	Action 1. Perform audits for energy efficiency; Action 2. Introduction of packages of energy efficiency measures. Costs: 2,500,000 EURO; Estimated CO2 reduction target: 7,670 to;
	TRANSPORT	MUNICIPAL FLEETS: Action 1. Use of vehicles that have low fuel consumption; Action 2. Use of vehicles that are loaded with biodiesel. Costs: 250,000 EURO; Estimated CO2 reduction target: 32.58 to; PUBLIC TRANSPORT: Action 1. Feasibility study for integrated urban transport; Action 2. Preparation of working draft for the construction of new bus routes; Action 3. Preparation of working draft for upgrading / renovation of existing contact network and reconstruction of routes trolleybus network; Action 4. Preparation of working draft for the reconstruction of the road network of trolleybus routes, including and all related activities: repair stops platforms for people with disabilities, light and audio announcements of stops and information for blind and changeable message signs, installing pedestrian traffic lights with audible alarm for the blind, rehabilitation of walkways and sidewalks, building of bike lanes, street lighting with energy efficient, building surveillance, build signs and markings; Action 5. Preparation of working draft for construction of multistory open parking in complex Dabnika; Action 6. Preparation of working draft for the implementation of an automated control system - centralized computer system, traffic control and modernization of traffic lights; Action 7. Modernization and expansion of public transport trolley in the city of Vratsa Action 8. Rehabilitation and reconstruction of street networks and constructions; Action 9. Repair, implementation of energy efficiency measures and cool the rooms that will accommodate the operational centers of the system for safe urban environment and risk prevention. Costs: 34,164,100 EURO; Estimated CO2 reduction target: 38 to.; PRIVATE AND COMMERCIAL TRANSPORT: Action 1. Organizing local information days to reduce the number of

		cars traveling in the center; Action 2. Encouraging people to use carpool; Action 3. Promoting the use of bicycles. Action 4. Construction of bike lanes; Action 5. Construction of public parking lots with energy efficient lighting and landscaping. Costs: 48,000 EURO; Estimated CO2 reduction target: 472 to.;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Administrative structure assigned, including professionals from the following fields - experts from directorate "Protocol, administration of projects and international cooperation", specialist from directorate "Spatial Development, public infrastructure and environment" Energy management is carried out by experts from the departments: Protocol administration of projects and international cooperation, Spatial Planning and Finance, economic analysis, local revenues and municipal property
	Involvement of stakeholders and citizens	Energy days have been organized and are planned to be organized. Information campaigns for the tertiary sector will take place in the Municipality
	Overall estimated budget	410,877,329.25 BGN 210,081,465 EURO
	Foreseen financing sources for the investments	Municipal budget, EU Structural funds, Eco-innovation initiative, Intelligent Energy Europe Programme, JASPERS financial initiative, JESSICA initiative, Credit Line for Energy Efficiency and Renewable Energy Sources in Bulgaria, Residential Energy Efficiency Credit Line, EIB Credit Line for Energy Efficiency in Bulgaria, Energy Efficiency Fund, National Trust Eco Fund, ESCO, public private partnerships.
	Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years.
Actions selected to be implemented within the first year after finalization of the SEAP		Action Energy audits of buildings, municipal ownership Action Reconstruction, maintenance and implementation of energy efficiency measures in educational institutions - kindergartens, primary and secondary schools Action Reconstruction, maintenance and implementation of energy efficiency measures in health facilities Action Increasing the energy efficiency of "Covered athletics track to Sports Complex "Hristo Botev "- Vratsa. Action Construction of public green area in housing estate "Dabnika" Action Rehabilitation and renovation of public park "Hijata"; Action Construction of park zone in the region of Medkovsko dere from the Boulevard "Vtori Yuni" to "Vasil Kanchov". Action Feasibility study for integrated urban transport; Action Preparation of working draft for the construction of new bus routes; Action Preparation of working draft for upgrading / renovation of existing contact network and reconstruction of routes trolleybus network; Action Preparation of working draft for the reconstruction of the road network of trolleybus routes, including and all related activities: repair stops platforms for people with disabilities, light and audio announcements of stops and information for blind and changeable message signs, installing pedestrian traffic lights with audible alarm for the blind, rehabilitation of walkways and sidewalks, building of bike lanes, street lighting with energy efficient, building surveillance, build signs and markings; Action Preparation of working draft for construction of multistory open parking in complex Dabnika; Action Preparation of working draft for the implementation of an automated control system - centralized computer system, traffic control and modernization of traffic lights;
Web address:		http://www.vratza.bg/?category=42

Contact details:	**MUNICIPALITY OF VRATSA** **Ralitsa Geshovska - Chief expert "Investment projects"** Phone: +359 887 825023, e-mail: ralges@abv.bg **Stanislava Peeva - Senior expert "Operational programme"** Phone: +359 889 265626, e-mail: stani.peeva@abv.bg

2. MEZDRA MUNICIPALITY

Conurbation:	**VRATSA CONURBATION**	
Municipality:	**MUNICIPALITY OF MEZDRA**	
Population:	**Number of population in 2012: 21,029**	
BEI year:	**2005**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 64,992.95 MWh / CO_2: 51,120.52 to.;**	
Details related to the public dabate on SEAP	It was made a local forum on 15.04.2013 with the participants of the administration, municipal council, citizens, media representatives, NGOs	
Approval of SEAP by local authority	The Sustainable Energy Action Plan was approved by the Municipal Council-Mezdra with Decision № 323 from **25.04.2013** Direct link to the website of the local authority where you can find the decision approving the SEAP- http://obs.mezdra.bg/?p=280	
Overall CO_2 emission reduction target by 2020	**25 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	The main goal of the Action Plan for Sustainable Energy of Municipality of Mezdra is to become a tool for the implementation of municipal policies on energy efficiency and renewables. Reduction of CO2 emissions in the municipality of Mezdra - 25%. Reducing energy consumption Municipality Mezdra - 18%. Share of renewable energy consumption in the municipality Mezdra - 68%.	
Objectives, targets:	Priority 1. Construction and development of sustainable energy infrastructure Specific Objective 1.1: Improve energy efficiency in public infrastructure. Specific Objective 1.2: Improve energy efficiency in residential buildings in the municipality. Specific Objective 1.3: Improve the energy efficiency of street lighting. Priority 2: Harnessing energy from renewable sources. Specific Objective 2.1: Increasing the share of renewable energy used in the public sector. Specific objective: 2.2: Increase the proportion of energy used generated from renewable energy sources in the residential sector. Specific Objective 2.3: Encourage business investment for the construction of renewable energy facilities in the municipality. Priority 3: Support for changing energy behavior. Specific Objective 3.1: Increase public awareness and building a culture of energy efficient behavior in the home and business. Specific Objective 3.2: Create and promote "green" identity of the municipality. Priority 4: Enhancing local capacity for sustainable energy planning. Specific Objective 4.1: Increase the capacity of the municipal administration for planning, implementation and monitoring of energy efficiency measures. Specific Objective 4.2: Mobilizing public support for the implementation of the Programme for the promotion of EMI in support of business and civil society organizations.	
SEAP actions in key sectors:	MUNICIPAL	MUNICIPAL BUILDINGS, EQUIPMENT, FACILITIES: Action 1. Conducting energy audits of buildings municipal property. Action 2. At stepping stone implement of ship surveys provided for in the reports of the energy efficiency measures with a focus on educational and social structure. Action 3. Installation of municipal buildings on systems with RENEWABLE ENERGY/renewable energy/. Costs: 766,091.77 EURO;

		Estimated CO_2 reduction target: 460.64 to.; MUNICIPAL PUBLIC LIGHTING: Action 1: Repair of existing and construction of the base electro energy and light technical data for the system of street lighting in the municipality. Action 2: Preparation and maintenance of the base electro energy and light-technical data for the system of street lighting in the municipality. Action 3: Developing and implementing effective information models for the promotion of European, national and local legislation in the field of energy efficiency. Costs: 91,931.01 EURO; Estimated CO_2 reduction target: 122,87 to;
	RESIDENTIAL	Action 1: Encouraging citizens to implement energy efficiency measures in the housing sector. Costs: 10,241,556 EURO; Estimated CO_2 reduction target: 4,872 to;
	TERTIARY	Action 1:Perform audits for energy efficiency; Action 2: Development of mechanisms for public-private partnership for construction of RES installations on the territory of the municipality. Action 3: Creation of energy informational base for installed renewable energy capacity in the territory of the municipality. Costs: 769,666.85 EURO; Estimated CO_2 reduction target: 1,390.50 to;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Structural unit was created in the municipal administration, which will be responsible for the coordination of the whole process of planning and implementation of programmes for energy efficiency and renewable energy sources. Energy management is carried out by experts from the departments: Department of Municipal environmental inspection, Directorate 'Structure territory" and Directorate 'Structure territory"
	Involvement of stakeholders and citizens	Organizing and conducting campaigns to promote renewable energy sources in the private sector. Encouraging citizens to the realisation of energy efficiency measures in residential buildings.
	Overall estimated budget	24,360,572.02 BGN; 12,180,286.01 EURO;
	Foreseen financing sources for the investments	Municipal budget, EU Structural funds, Eco-innovation initiative, Intelligent Energy Europe Programme, JASPERS financial initiative, JESSICA initiative, Credit Line for Energy Efficiency and Renewable Energy Sources in Bulgaria, Residential Energy Efficiency Credit Line, EIB Credit Line for Energy Efficiency in Bulgaria, Energy Efficiency Fund, National Trust Eco Fund, ESCO, public private partnerships.
	Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years.
Actions selected to be implemented within the first year after finalization of the SEAP	Action 1: Encouraging citizens to implement EE measures in the housing sector. Action 2: Preparation and maintenance of the base electro energy and light-technical data for the system of street lighting in the municipality. Action 3: Development of mechanisms for public-private partnership for construction of RES installations on the territory of the municipality. Action 4: Creation of energy informational base for installed renewable energy capacity in the territory of the municipality.	
Web address:	http://mezdra.bg/?page_id=96	
Contact details:	**MUNICIPALITY OF MEZDRA** **Galina Ivanova - Expert "Ecology" -** e-mail: blog@abv.bg, phone: + 359 888 457 981	

3. MIZIA MUNICIPALITY

Conurbation:	**VRATSA CONURBATION**	
Municipality:	**MUNICIPALITY OF MIZIA**	
Population:	**Number of population in 2012: 7,291 inhabitants;**	
BEI year:	**2010**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 17,031,104 MWh / CO_2 emissions: 13,673.40 to;**	
Details related to the public dabate on SEAP	It was made a local forum on 22.05.2013 with the participants of the administration, municipal council, citizens, media representatives, NGOs	
Approval of SEAP by local authority	The Sustainable Energy Action Plan was approved by the Municipal Council-Mizia with Decision № 245 from **22.05.2013** Direct link to the website of the local authority where you can find the decision approving the SEAP- http://www.miziabg.com/index.php?option=com_content&view=article&id=262&Itemid=60&lang=bg (Protocol № 24 from 22.05.2013)	
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	Municipal administration is directly responsible for managing energy consumption in school buildings, kindergartens, social, cultural and municipal office buildings. Local authorities are also responsible for the condition and operation of street lighting systems and public transportation. In this respect Mizia municipality shall monitor the implementation of municipal energy policy and on energy consumption for all municipal buildings. Municipality has Mizia acting Municipal Energy Efficiency Programme 2010-2015. The main objectives are in line with EU objectives - to reduce overall energy consumption and increase comfort.	
Objectives, targets:	The main objectives of the Action Plan are to enhance the quality of life and energy comfort at the least cost to the citizens of the municipality by means of decentralized renewable energy supply with a parallel implementation of energy efficiency measures. Municipality will consistently pursue a policy of energy management at the local level, which covers energy consumption in municipal and residential buildings, street lighting, industry and transport. Priority 1. Reduction of energy consumption and $C0_2$ emissions in the "Houses". Priority 2. Reduction of energy consumption and $C0_2$ emissions in the "Public Buildings". Priority 3. Reduction of energy consumption and $C0_2$ emissions in sector industrial enterprises and small and medium enterprises (SMEs). Priority 4. Reduction of energy consumption and $C0_2$ emissions for the “Transport”. Priority 5. Spatial planning, procurement and interaction with civil society. Priority 6. Encouraging the use of renewable energy.	
SEAP actions in key sectors:	MUNICIPAL	MUNICIPAL BUILDINGS, EQUIPMENT, FACILITIES: Action 1: Energy auditing and certification of municipal buildings (all buildings in accordance with the EEA area over 1000sq.m necessarily subject to certification) Action 2.Application an integrated package of measures to improve energy efficiency in all municipal buildings Costs: 2,010,000 EURO; Estimated CO2 reduction target: 269.79 to; MUNICIPAL PUBLIC LIGHTING: 1 Upgrading of street lighting, designing and building automated control siotema 2.Rehabilitation and renovation of the existing system by replacing inefficient lamps Costs: 1,010,000 EURO; Estimated CO_2 reduction target: 140.06 to;
	RESIDENTIAL	1. Improving energy efficiency in residential buildings in the municipality 2. Providing technical assistance for project preparation for implementing energy efficiency measures

		Costs: NA Estimated CO2 reduction target: 6,707.87
	TRANSPORT	MUNICIPAL FLEET: 1. Setting criteria for "green" procurement when purchasing new vehicles 2.Use of biofuels Estimated CO_2 reduction target: 15.07 to; PUBLIC TRANSPORT: 1: Increasing the quality of service PRIVATE AND COMMERCIAL TRANSPORT: 1. Behavior change 2. eco-driving
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Responsibility for implementation of the Covenant of Mayors initiative is the staff of the municipal administration department- European plans and projects and Spatial Planning and Construction. Energy management is carried out by experts from the departments -European plans and projects, Spatial Planning and Construction and Financial Department
	Involvement of stakeholders and citizens	Action 1: Energy auditing and certification of municipal buildings (all buildings in accordance with the EEA area over 1000sq.m necessarily subject to certification) Action 2.Application an integrated package of measures to improve energy efficiency in all municipal buildings
	Overall estimated budget	38,177,216 BGN; 19,520,000 EURO;
	Foreseen financing sources for the investments	Municipal budget, EU Structural funds, Eco-innovation initiative, Intelligent Energy Europe Programme, JASPERS financial initiative, JESSICA initiative, Credit Line for Energy Efficiency and Renewable Energy Sources in Bulgaria, Residential Energy Efficiency Credit Line, EIB Credit Line for Energy Efficiency in Bulgaria, Energy Efficiency Fund, National Trust Eco Fund, ESCO, public private partnerships.
	Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years.
Actions selected to be implemented within the first year after finalization of the SEAP	Action 1: Energy auditing and certification of municipal buildings (all buildings in accordance with the EEA area over 1000 sq.m necessarily subject to certification Action 2.Application an integrated package of measures to improve energy efficiency in all municipal buildings Action 3.Rehabilitation and renovation of the existing system by replacing inefficient lamps	
Web address:	http://www.miziabg.com/index.php?option=com_content&view=article&id=67%3Astrategii-i-planove&catid=29%3Adokumenti&Itemid=44&lang=bg	
Contact details:	**MUNICIPALITY OF MIZIA** **Ventsislava Parvanova** - Chief Expert, "Economic Development, European programs and projects, international cooperation and public procurement" e-mail: veni.parvanova@gmail.com, + 359 885 319 115 **Margarita Konstantinova** - Chief Specialist "Ecology" e-mail: margarita_konstantinova@abv.bg, + 359 897 934 911	

4. KOZLODUY MUNICIPALITY

Conurbation:	**VRATSA CONURBATION**
Municipality:	**MUNICIPALITY OF KOZLODUY**
Population:	**Number of population in 2012: 20,766 inhabitants**
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 96,140.46MWh / CO_2 emissions: 40,549.03 to;**

Details related to the public dabate on SEAP	It was made a local forum on 15.02.2013 with the participants of the administration, municipal council, citizens, media representatives, NGOs	
Approval of SEAP by local authority	The Sustainable Energy Action Plan was approved by the Municipal Council-Kozloduy with Decision № 230 from **26.02.2013** Direct link to the website of the local authority where you can find the decision approving the SEAP- http://www.kozloduy.bg/resheniya-na-obschinski-svet/reshenie-222-do-238_bg	
Overall CO_2 emission reduction target by 2020	**104 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	The main objective of the SEAP is to gather the necessary data on energy consumption in the municipality and based on them to identify the measures that the municipality to realize reduction of carbon emissions in energy consumption. Following the trend of electricity consumption it is expected in 2020 show an increase based on the average consumption per capita of the municipality. To stop this trend, it is necessary to raise awareness of the opportunities to reduce electricity consumption. It is also possible upcoming increases in electricity to stimulate this process. Positive factor for the reduction of emissions is projected by NPP "Kozloduy" development of transmission network. Since the thermal power delivered to the heating and hot water is waste heat from steam turbines of nuclear reactors, its emissions are practically almost equal to 0. Because of this shift from any fuel for heating and hot water will reduce greenhouse gas emissions. Since a significant portion of energy consumption is used for heating and lighting (especially in public buildings and streets) will be necessary to implement energy saving measures that can provide at least 30% energy savings. There will increase the use of biomass through the use of waste from agricultural production and animal husbandry. Certain portion of the energy consumption of the municipality can take renewable energy. Besides power generation of the hot channel in NPP "Kozloduy" a power of 5 MW, it can be photovoltaic installations, boilers that use fuel as straw, wood chips or pellets plants to produce biogas. The municipality has the option of using the energy of the water in the rivers Danube and Ogosta. SEAP of Municipality of Kozloduy has the main goal to become a tool for the implementation of municipal policies on energy efficiency and renewables. It corresponds to the energy policy at national and regional level.	
Objectives, targets:	Priority 1: Creating and developing a sustainable urban environment Specific Objective 1.1: Increase energy efficiency in public infrastructure Specific Objective 1.2: Increase energy efficiency in the private sector Specific Objective 1.3: Improve the efficiency of street lighting Priority 2: Unleashing the potential of renewable energy in the municipality Specific Objective 2.1: Use of renewable energy resources in the municipal sector Specific Objective 2.2: Utilization of renewable energy sources in the private sector Specific Objective 2.3: Promote your business to build renewable energy facilities in the municipality Priority 3: Development of sustainable transport in the municipality Specific Objective 3.1: Organise awareness campaigns for sustainable transport Specific Objective 3.2: Increase the efficiency of public transport Priority 4: Support for energy management at the local level Specific Objective 4.1: Increase the capacity of local authorities in the field of EE and RES Specific Objective 4.2: Increase public awareness in the field of EE and RES Specific Objective 4.3: Support for information on businesses in the field of EE and RES	
SEAP actions in key sectors:	MUNICIPAL	MUNICIPAL BUILDINGS, EQUIPMENT, FACILITIES: Action 1: Performing an energy audits for all municipal buildings Action 2: Implementing proposed in the audits measures Action 3: Construction of photovoltaics and sun collector for hot water on the roofs of municipal building Costs: 580,000 EURO; Estimated CO_2 reduction target: 771.4 to.; MUNICIPAL PUBLIC LIGHTING: Action 1: Performing an energy audit of the municipal public lighting

		system Action 2: Construction of energy efficient public lighting system Action 3: Development of efficient lighting control and maintenance systems Costs: 580,000 EURO; Estimated CO_2 reduction target: 771.4 to;
	RESIDENTIAL	Action 1: Encouriging citizens to implement EE measures in their houses Action 2: Establishment of Municipal public centre for EE and RES Costs: 1,055,000 EURO; Estimated CO2 reduction target: 107.21 to;
	TERTIARY	Action 1: Development of database for the intalled renewable energy sources Action 2: Atracting investments by tertiary sector through tax preferencials, specialised administrative services, etc Action 3: Constructed SHPP on the hot cannal in NPP "Kozloduy" Action 4: Development of mechanisms for construction of renewable energy plants through PPP Costs: 4,253,500 EURO; Estimated CO2 reduction target: 34,209.85 to;
	TRANSPORT	PUBLIC TRANSPORT: Action 1: Replacement of old municipal fleet with buses, running on natural gas Costs: 150,000 EURO; Estimated CO_2 reduction target: 41.90 to; PRIVATE AND COMMERCIAL TRANSPORT: Action 1: Organizing an information campaigns for stimulatiing car sharing in direction to the NPP "Kozloduy" Costs: 10,000 EURO; Estimated CO_2 reduction target: 1,806.36 to;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Administrative structure assigned, including professionals from the following fields – directorate "International Projects and Procurement" and Urban planning
	Involvement of stakeholders and citizens	Energy days have been organized and are planned to be organized. Information campaigns for the tertiary sector will take place in the Municipality
	Overall estimated budget	92,292,000 BGN; 47,188,874 EURO;
	Foreseen financing sources for the investments	Municipal budget, EU Structural funds, Eco-innovation initiative, Intelligent Energy Europe Programme, JASPERS financial initiative, JESSICA initiative, Credit Line for Energy Efficiency and Renewable Energy Sources in Bulgaria, Residential Energy Efficiency Credit Line, EIB Credit Line for Energy Efficiency in Bulgaria, Energy Efficiency Fund, National Trust Eco Fund, ESCO, public private partnerships.
	Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years.
Actions selected to be implemented within the first year after finalization of the SEAP	Objective 1.1: Increase energy efficiency in public infrastructure Measure: Conducting energy audits of buildings - municipal property Measure: Gradual discharge of their audit reports EE measures with a focus on educational and social infrastructure Objective 1.3: Improve the efficiency of street lighting Measure: Preparation and implementation of a project for the repair of existing and construction of new energy efficient street lighting	

	Objective 2.1: Use of renewable energy resources in the municipal sector Measure: Installation of solar panels on the roofs of municipal buildings for domestic hot water and electricity Objective 2.2: Utilization of renewable energy sources in the private sector Measure: Organizing and campaigning for the promotion of renewable energy sources in the private sector Specific Objective 2.3: Promote your business to build renewable energy facilities in the municipality Measure: Power generation of the hot channel of NPP "Kozloduy" with 5 MW Objective 4.1. Increasing the capacity of local authorities in the field of EE and RES, Measure: Establishment of a structural unit of the municipal administration, which assumes responsibility for coordinating the overall process of planning, implementation and monitoring of sustainable energy policies at the local level; Measure: Creation of Municipal Information Center for EE and RES
Web address:	http://www.kozloduy.bg/strategicheski-dokumenti/planove_bg
Contact details:	**MUNICIPALITY OF KOZLODUY** **Mario Milov** - Director "International Projects and Procurement" e-mail: mariomiloff@abv.bg , phone +359 888 774482 **Irina Stoianova -** Chief expert "International programme and projects" e-mail: iistoyanova@kozloduy.bg

5. ORYAHOVO MUNICIPALITY

Conurbation:	**VRATSA CONURBATION**	
Municipality:	**MUNICIPALITY OF ORYAHOVO**	
Population:	**Number of population in 2012: 11,125 inhabitants;**	
BEI year:	**2009**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 38,292.55MWh / CO_2 emissions: 28,249.16 to;**	
Details related to the public dabate on SEAP	It was made a local forum on 28.05.2013 with the participants of the administration, municipal council, citizens, media representatives, NGOs	
Approval of SEAP by local authority	The Sustainable Energy Action Plan was approved by the Municipal Council-Oryahovo with Decision № 402 from **30.05.2013** Direct link to the website of the local authority where you can find the decision approving the SEAP- http://www.oriahovo.bg/index.php/obshtinski-savet/resheniya (Protocol № 33 from 30.05.2013)	
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**	
Long-term vision of the local authority (priority areas of action, main trends and challenges)	2020 Oryahovo Municipality will strive to achieve a 20% CO2 reduction compared to the base 2009, at least 20% improvement in energy efficiency of the municipality and 20% share of renewable energy produced and consumed in the municipality of Oryahovo. By way of expertise provides these objectives can be achieved through the implementation of measures - energy efficiency, renewable energy and transportation. Some of them are improving infrastructure, increasing the efficiency of street lighting in the municipality to increase the capacity of local authorities in the field of EE and RES, organizing awareness campaigns for citizens and businesses, the use of renewable energy resources in the municipal and private sectors and administrative incentives for encourage investment in this sector.	
Objectives, targets:	Priority 1. Reduction of energy consumption and $C0_2$ emissions in the "Houses" Priority 2. Reduction of energy consumption and $C0_2$ emissions in the "Public Buildings" Priority 3. Reduction of energy consumption and $C0_2$ emissions in sector industrial projects, small and medium enterprises (SMEs) Priority 4. Reduction of energy consumption and $C0_2$ emissions for the "Transport" Priority 5. Use of RES	
SEAP actions in key sectors:	MUNICIPAL	MUNICIPAL BUILDINGS, EQUIPMENT, FACILITIES: Action 1.Prilagane an integrated package of measures to improve energy efficiency in n all municipal buildings Action 2. The buildings of the 4-day kindergartens, nursery schools

		and 5 after energy audit provides the following activities /wall insulation, insulation of roofs, replacement windows and doors with PVC - double glazing, increasing the efficiency of heating, installation of solar system hot water/ Action 3. Energy renovation of municipal buildings / "Employment Agency" Municipal hostel MCC "Lyudmila Jivkova", "Social Welfare" Health Service Selanovtsi village, gym village Selanovtsi, Hall Badminton Oryahovo. Action 4. Refresh steam plant to school "St. St. Cyril and Methodius" and the school "Hr. Botev" in Oryahovo. Costs: 1,602,529.14 EURO; Estimated CO_2 reduction target: 491.40 to; MUNICIPAL PUBLIC LIGHTING: Action 1.Rehabilitation of the existing system of street lighting, by periodic replacement of inefficient lamps Action 2. Optimizing the management system of street lighting Costs: 7,669.5 EURO; Estimated CO_2 reduction target: 226.044 to;
	RESIDENTIAL	Action 1. Energy renovation of households living in houses and prefabricated buildings. Action 2. Replacing electric water heaters dual serpentine boilers for hot water heated by solar energy and bio-fuel heating equipment. Costs: EURO; Estimated CO2 reduction target: 918.099 to;
	TRANSPORT	PUBLIC TRANSPORT: Action 1. By operating three wind turbines in the municipality Oryahovo Costs: NA; Estimated CO_2 reduction target: 3,735 to; PRIVATE AND COMMERCIAL TRANSPORT: Action 1. Behavior change Action 2. eco-driving Costs: NA Estimated CO_2 reduction target: 74.7 to;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Responsibility for the implementation of the Covenant of Mayors initiative is the "Municipal technical activities, investments and municipal property." Deputy Mayor, expert "Illegal construction" and ecologist
	Involvement of stakeholders and citizens	Behavior of the end user is formed mainly on the basis of economic interests and incentives and have a strong impact on the overall picture of consumption energiya. That why Municipality Oryahovo includes citizens and other stakeholders by organizing annual Municipal Intelligent Energy Days.
	Overall estimated budget	3,149,227 BGN; 1,610,199 EURO;
	Foreseen financing sources for the investments	Municipal budget, EU Structural funds, Eco-innovation initiative, Intelligent Energy Europe Programme, JASPERS financial initiative, JESSICA initiative, Credit Line for Energy Efficiency and Renewable Energy Sources in Bulgaria, Residential Energy Efficiency Credit Line, EIB Credit Line for Energy Efficiency in Bulgaria, Energy Efficiency Fund, National Trust Eco Fund, ESCO, public private partnerships.
	Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years.

Actions selected to be implemented within the first year after finalization of the SEAP	Action 1. Apply of an integrated package of measures to improve energy efficiency in n all municipal buildings Action 2. Ensuring participation in training in energy management of municipal administration specialists working in the field of energy efficiency Action 3. Conducting energy days and student population
Web address:	http://www.oriahovo.bg/index.php/dokumenti/programi
Contact details:	**MUNICIPALITY OF ORYAHOVO** **Elka Gulenova** - Chief Specialist "Ecology" e-mail: el_him@dir.bg, phone:+ 359 884 601 354

6. KRIVODOL MUNICIPALITY

Conurbation:	**VRATSA CONURBATION**	
Municipality:	**MUNICIPALITY OF KRIVODOL**	
Population:	**Number of population in 2012: 9,171**	
BEI year:	**2009**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 1,534.62 MWh / CO_2 emissions: 952.32 to.;**	
Details related to the public dabate on SEAP	It was made a local forum on 28.06.2013 with the participants of the administration, municipal council, citizens, media representatives, NGOs	
Approval of SEAP by local authority	The Sustainable Energy Action Plan was approved by the Municipal Council-Krivodol with Decision № 310 from **05.07.2013** Direct link to the website of the local authority where you can find the decision approving the SEAP http://www.krivodol.com/bg/protokoli-ot-zasedaniya-na-obshtinski-savet-2013-g/ (Protocol № 29 from 05.07.2013)	
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	Krivodol Municipality has the potential to reduce greenhouse gas emissions. Its goals are 20% reduction of CO2 by 2020, at least 25% improvement in the energy efficiency in the municipality and at least a 10% share of renewable energy consumed in the Municipality Krivodol. These goals are expected to be achieved through the implementation of certain measures, such as energy efficienc and renewable energy. Increasing the energy efficiency in the public and private infrastructure, improving the efficiency of street lighting in the municipality, enhancing the capacity of local authorities in the field of EE and RES, organizing awareness campaigns for citizens and business, administrative incentives to encourage investment in this sector. Awareness campaigns for sustainable transport are also envisaged.	
Objectives, targets:	Priority 1: Building and developing a sustainable urban environment. Objective 1.1: Increase energy efficiency in public infrastructure Objective 1.2: increase energy efficiency in the private sector Objective 1.3: increasing the efficiency of street lighting Priority 2: POTENTIAL UTILIZATION OF RES IN THE MUNICIPALITY Objective 2.1: Resource use of RES in the public sector Objective 2.2: Use of renewable energy resources in the private sector Objective 2.3: Promote your business to build renewable energy facilities in the municipality Priority 3: Development of sustainable transport in the municipality Objective 3.1: Organization of awareness campaigns for sustainable transport Objective 3.2: Improve the efficiency of public transport Priority 4: Support for energy management at the local level Objective 4.1. Increasing the capacity of local authorities in the field of EE and RES Objective 4.2: Increase public awareness in the field of EE and RES Objective 4.3: Support for information on businesses in the field of EE and RES	
SEAP actions in key sectors:	MUNICIPAL	MUNICIPAL BUILDINGS, EQUIPMENT, FACILITIES: Action 1. Performance of detailed energy audits. Action 2. Implementation of energy efficiency measures. Costs: 2,607,588.60 EURO;

		Estimated CO_2 reduction target: 124.85 to; MUNICIPAL PUBLIC LIGHTING: Action 1. Replacement of street and park lighting. Action 2. Construction or reconstruction of the cable network and pillars. Action 3. Renewal of earthing connections. Costs: 306,715.13 EURO; Estimated CO_2 reduction target: 43.41 to;
	TRANSPORT	PUBLIC TRANSPORT: Action 1. Development and approval of projects for the reconstruction of the class IV road network. Action 2. Rehabilitation of the street network in the town of Krivodol. Action 3. Rehabilitaton of the street network in the villages Costs: 1,610,569.42 EURO; Estimated CO_2 reduction target: 22.21 to;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Administrative structure composed of experts from the Specialised Administration Directorate. Energy management is implemented by experts from the Specialised Administration Directorate.
	Involvement of stakeholders and citizens	Krivodol Municipality organises intelligent energy days every year. Information campaigns for the tertiary sector will be held as well.
	Overall estimated budget	8,858,863.9 BGN; 4,529,534.78 EURO;
	Foreseen financing sources for the investments	Municipal budget, EU Structural funds, Eco-innovation initiative, Intelligent Energy Europe Programme, JASPERS financial initiative, JESSICA initiative, Credit Line for Energy Efficiency and Renewable Energy Sources in Bulgaria, Residential Energy Efficiency Credit Line, EIB Credit Line for Energy Efficiency in Bulgaria, Energy Efficiency Fund, National Trust Eco Fund, ESCO, public private partnerships.
	Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years.
Actions selected to be implemented within the first year after finalization of the SEAP	Action 1. Performance of detailed energy audits.	
Web address:	http://www.krivodol.com/bg/programa-za-opazvane-na-okolnata-sreda/	
Contact details:	**MUNICIPALITY OF KRIVODOL** **Ivan Ivanov** - Head of department "PP and HA" e-mail: ivanivanoff@dir.bg, phone: +359 887 561312 **Elena Tsalovska** - Chief Specialist Environmental Protection e-mail: elenatzalovska@abv.bg, +35991172545	

CROATIA:
OSIJEK CONURBATION SEAPS IN FIGURES:

Conurbation Town/ Municipality	Population	BEI year:	Final energy consumption (MWh)	CO2 emissions: (tones)	CO2 emission reduction target by 2020	CO2 Proposed reduction (tones)	Budget EURO
OSIJEK	107,784	2010	1,690,816.66	421,285.00	22%	94,242	NA
BELI MANASTIR	10,549	2010	112,345.88	24,304.00	20%	13,068	NA
BELIŠĆE	10,790	2009	92,733.89	17,643.63	21%	3,785	NA
DONJI MIHOLJAC	9,468	2009	119,293.46	24,717.60	21%	5,280	NA
VINKOVCI	35,375	2011	381,325.00	79,300	21%	16,701	NA
TOTAL:	**173,966**		**2,563,548.12**	**608,284.5**		**133,076**	**NA**

1. CITY OF OSIJEK

Conurbation:	**OSIJEK CONURBATION**	
Municipality:	**CITY OF OSIJEK**	
Population:	**Number of population – 107,784 inhabitants in 2011**	
BEI year:	**2010**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	Final energy consumption: **1,690,816.66 MWh / CO_2 emissions: 421,285 t**	
Details related to the public dabate on SEAP	June 13th 2013, 41 participant, participants were interested in the topic and gave their suggestions on development of SEAP measures, main topic were presentation of BEI, current status and what could be better, which measures would be best implemented in the City in order to decrease CO_2 emissions, Participants who were the most active were representatives of UNDP Croatia and also constructors of energy efficient systems of heating and energy auditors as well as experts from the Osijek-Baranja County. The reactions of people were very good. They were active and interested in the topic. After the forum list of all proposed measures was made and sent out to the participants via e-mail so they could revisit it.	
Approval of SEAP by local authority	**City Council decision, October 17th 2013** http://www.osijek.hr/sluzbeni-glasnik/pdf/608_akcijski%20plan%20energet%20odrzivog%20razvitka.pdf	
Overall CO_2 emission reduction target by 2020	**22 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	All measures stated in the SEAP represent the goal and vision set by the City/municipality to tackle with CO_2 emissions and energy consumption as well as having in mind the global picture of achieving high standards in environmental protection and sustainable development.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES	Key actions and targets: -Modernization of inside lighting for 20 school classes; Estimated CO_2 reduction target 1.12 to.; estimated costs: 200,000.00 HRK; -Thermal insulation of facades and roofs for 15 public buildings; Estimated CO_2 reduction target: 186.09 to; estimated costs: 2,400,000.00 HRK; -Installation of energy efficient carpentry (windows) for 30 public buildings; Estimated CO_2 reduction target 162.83 to.; estimated costs: 6,000,000.00 HRK; -Installation of thermostats in all public buildings; Estimated CO_2 reduction target: 671.57 to.; estimated costs: 2,985,630.00 HRK; -Green public procurement for procurement of appliances for public buildings; Estimated CO_2 reduction target: 99.48 to.; estimated costs: 0.00 HRK;

		-Energy efficient lightbulbs in all public buildings; Estimated CO_2 reduction target: 72.35 to.; estimated costs: 0.00 HRK; -Energy audits and certification of all public buildings; Estimated CO_2 reduction target: 172.02 to.; estimated costs: 600,000.00 HRK; -Development of small PV systems (up to 30kW) on roofs of public buildings; Estimated CO_2 reduction target: 67.83 to.; estimated costs: 400,000.00 HRK; - Modernization of bioler rooms/heating systems (more efficient low temperature systems) in public buildings; reduction t CO_2: 1,393.79; estimated costs: 2,500,000.00 HRK; -Heating/cooling systems, thermomechanical systems and installation; Estimated CO_2 reduction target: 883.17 to.; estimated costs: N/A; - Installation of thermometers in all rooms of public buildings; Estimated CO_2 reduction target: 203.77to.; costs: 10,000.00 HRK;
	TERTIARY	Key actions and targets: -Installation of solar systems; Estimated CO_2 reduction target: 15,336.57 to.; estimated costs: N/A; -Switch to energy efficient light bulbs; Estimated CO_2 reduction target: 9,252.00 to; estimated costs: 0.00 HRK; - City Councils' decision on lowering the communal contribution for building the new low energy and passive buildings for commercial use; Estimated CO_2 reduction target: 15,336.80 to.; estimated costs: 0.00 HRK; -Development of small PV systems (up to 30kW) on roofs of commercial buildings; Estimated CO_2 reduction target: 271.32 to.; estimated costs: 700,000.00 HRK; -Thermal insulation of facades and roofs for commercial buildings; Estimated CO_2 reduction target: 2,737.49 to.; estimated costs: 37,443,840.00 HRK;
	RESIDENTIAL BUILDINGS	Key actions and targets: -Thermal insulation of facades and roofs; Estimated CO_2 reduction target: 5,467.4 to.; estimated costs: N/A; -Incentives for usage of RES in hoseholds; Estimated CO_2 reduction target: 546.26 to.; estimated costs: 8,400,000.00 HRK; -Installation of heat distribution frame for apartment buildings; Estimated CO_2 reduction target: 416.09 to.; estimated costs: 167,041.00 HRK; -Installation of thermostats for radiators in apartment buildings; Estimated CO_2 reduction target: 2,550.45 to.; estimated costs: 18,774,340.00 HRK; -Switch to A+++ and other higly energy efficient appliances in households; Estimated CO_2 reduction target: 14,485.26 to.; estimated costs: N/A; -Change to energy efficient light bulbs in households; Estimated CO_2 reduction target: 12,245.90 to.; estimated costs: 0.00 HRK; -Development of small PV systems (up to 30kW) on roofs of apartment buildings; Estimated CO_2 reduction target: 135.66 to; estimated costs: 1,400,000.00 HRK; -City Council decision on lowering the communal contribution for building the new low energy and passive houses; Estimated CO_2 reduction target: 14,638.44 to; estimated costs: 0,00 HRK;
	PUBLIC LIGHTNING	Key actions and targets: -Switching of old outdated lighting with energy efficient and ecologicaly acceptable lighting systems; Estimated CO_2 reduction target: 582.05 to.; estimated costs: 9,418,460.00 HRK; -Smart systems in public lighting; Estimated CO_2 reduction target: 434.54 to.; estimated costs: N/A;

Other sectors or field of actions covered by SEAP	MUNICIPAL FLEET	Key action and target: -Green public procurement in procuring the municipal fleet; Estimated CO_2 reduction target: 58.10 to.; estimated costs: 0,00 HRK;
	PUBLIC TRANSPORT	Key actions and targets: -E-mobility measures; Estimated CO_2 reduction target and costs N/A; -Correction of traffic signalization with the goal of improvement of traffic density; Estimated CO_2 reduction target: 3,504.4 to; costs: N/A; -Group measures for improvement of public bus transport in the City; Estimated CO_2 reduction target: 4,088.25 to.; estimated costs: N/A; -Smart system traffic lights on crossroads; Estimated CO_2 reduction target: 2,596.00 to., costs: N/A;
	PRIVATE AND COMMERCIAL TRANSPORT	Key action and target: -Car-sharing model; Estimated CO_2 reduction target: 2,518.33 to.; costs: N/A;
	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Key action and target: -Group measures for improvement of bicycle transport in the City; Estimated CO_2 reduction target: 1,751.60 to.; estimated costs: N/A;
	ENERGY EFFICIENCY REQUIREMENT/ STANDARDS	Key action and target: -Quota of 10% of usage of biofules in public transport; Estimated CO_2 reduction target: 7,779.72 to.; costs: legislative measure without investment costs;
	AWARENESS RAISING AND LOCAL NETWORKING	Key actions and targets: -Education and change of behaviour of employes/users of public builduings; Estimated CO_2 reduction target: 2,518.33 to.; costs: 140.000,00 HRK -Education on and promotion of EE for citizens; Estimated CO_2 reduction target: 18,336.49 to.; costs: 280,000.00 HRK; -Promotional, informative and educational measures with the goal of improvement of traffic quality and decreasing CO_2 emissions; Estimated CO_2 reduction target: 2,569.00 to.; costs: 320,000,00 HRK;
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Staff which was working on Conurbant project will continue working on SEAP implementatio. The team for monitoring evaluation will be developed. Within the City there is an expert capable of completing this task.
	Involvement of stakeholders and citizens	Stakeholders and citizens were involved throughout the implementation of Conurbant project through development of SEAP measures (forums, energy days) and will be involved in implementation of SEAP through the educational measures.
	Overall estimated budget	NA
	Foreseen financing sources for the investments	Town budget EU Structural Funds PPP (Public-Private Partnership) Croatian Bank for Reconstruction and Development Fund for Environmental Protection and Energy Efficiency ESCO models

		CIP/IEE, FP7 – Horizon 2020 CONCERTO
	Planned measures for monitoring and follow up	Indicators and results defined in SEAP. Monitoring team.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Education on EE, promotional and informative measures on raising the public awerenes about CO_2 emissions; 2. Conducting energy audits and certification of public buildings; 3. EE refurbisment of private households (thermal insulation of roofs and facades, new EE carpentry);	
Web address:	NA	
Contact details:	**CITY OF OSIJEK** **Mira Lizačić Vidaković - Senior advisor** tel: +385.31.229.222; e-mail: mira.lizacicv@osijek.hr	

2. BELI MANASTIR

Conurbation:	**OSIJEK CONURBATION**	
Municipality:	**Municipality of Beli Manastir**	
Population:	**Number of population in 2011 -10,549 inhabitants**	
BEI year:	**2010**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 112,345.88 MWh / CO_2 emissions: 24,304.00 to.CO2**	
Details related to the public dabate on SEAP	June 13th 2013, 21 participants were interested in the topic and gave their suggestions on development of SEAP measures, main topic were presentation of BEI, current status and what could be better, which measures would be best implemented in the Town in order to decrease CO_2 emissions, mostly interested in the topic were the representatives of publicly owned companies and private companies. Also we had a great cooperation with the Mayor of the town who gave everybody present on the forum a great insight into current status of works and plans of the town to cope with energy consumption and CO_2 emission.	
Approval of SEAP by local authority	Town Council decision, **December 16th 2013** http://www.beli-manastir.hr/pdf/2013/broj%209_13.pdf	
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	All measures stated in the SEAP represent the goal and vision set by the City/municipality to tackle with CO_2 emissions and energy consumption as well as having in mind the global picture of achieving high standards in environmental protection and sustainable development.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES	Key actions and targets: -Thermal insulation of facades and roofs for public buildings; Estimated CO_2 reduction target: 133.5 to.; estimated costs: 350,00 HRK/m^2; -Gas introduction into public buildings; Estimated CO_2 reduction target: 329.6 to.; estimated costs: 250,000,00 HRK/object; -Green public procurement for procurement of appliances for public buildings; Estimated CO_2 reduction target: 178.4 to.; estimated costs: 0,00 HRK; -Energy efficient lightbulbs in all public buildings; Estimated CO_2 reduction target: 131.5 to.; costs: 100,000.00 HRK; -Development of small PV systems on roofs of public buildings; Estimated CO_2 reduction target: 206.8 to.; estimated costs: 18.00

		HRK/W; -Modernization of heating systems (more efficient low temperature systems) in public buildings; Estimated CO_2 reduction target: 113.5 to.; estimated costs: 100,000.00 HRK/building; -Solar panel heating systems in public buildings; Estimated CO_2 reduction target: 45.4 to.; estimated costs: 5,000.00 HRK/m^2;
	TERTIARY	Key actions and targets: -Switch to energy efficient light bulbs; Estimated CO_2 reduction target: 71.6 to.; estimated costs: N/A; -Energy efficient refurbishment of commercial buildings; Estimated CO_2 reduction target: 91.2 to; estimated costs: 350.00 HRK/m^2; -Connection to gas grid; Estimated CO_2 reduction target: 103.7 to; estimated costs: N/A; -Switch to A+++ and other higly energy efficient appliances in commercial sector; Estimated CO_2 reduction target: 81.00 to.; estimated costs: N/A;
	RESIDENTIAL BUILDINGS	Key actions and targets: -Thermal insulation of facades and roofs; Estimated CO_2 reduction target: 222.4 to.; estimated costs: 350.00 HRK/m^2; -Refurbishment of carpentry in households; Estimated CO_2 reduction target: 152.8 to.; costs: 45,000.00 HRK/object; -Solar heating systems in households; Estimated CO_2 reduction target: 221.00 to; estimated costs: 25,000.00 HRK/system; -Switch to A+++ and other higly energy efficient appliances in households; Estimated CO_2 reduction target: 87.5 to.; estimated costs: 10,000.00 HRK/household; -Change to energy efficient light bulbs in households; Estimated CO_2 reduction target: 71.1 to.; estimated costs: 750.00 HRK/object; -Development of small PV systems on roofs of apartment buildings; Estimated CO_2 reduction target: 382.3 to.; estimated costs: 18.00 HRK/W; -Heating systems on biomass in households; Estimated CO_2 reduction target: 156.9 to.; estimated costs: 25,000.00 HRK/system; -Connection to gas grid of households; Estimated CO_2 reduction target: 104.6 to.; estimated costs: 40,000.00 HRK/household;
	PUBLIC LIGHTNING	Key action and target: -Modernization of public lighting system; Estimated CO_2 reduction target: 92.2 to; cost: 2,00.00 HRK/light post;
	PUBLIC TRANSPORT	Key actions and targets: -Usage of biofules in public transport; Estimated CO_2 reduction target: 1,104.8 to.; costs: N/A; -Stimulation of public transport; Estimated CO_2 reduction target: 369.5 to; costs: N/A;
	PRIVATE AND COMMERCIAL TRANSPORT	Key actions and targets: -Stimulating bicycle transport in the town; Estimated CO_2 reduction target: 369.50 to.; cost: N/A; -Car-sharing model; Estimated CO_2 reduction target: 147.8 to.; costs: N/A;

	PHOTOVOLTAIC /OTHER LOCAL ENERGY PRODUCTION	Key action and target: -Construction of biogas powerplant; Estimated CO_2 reduction target: 1,445.00 to; cost: N/A;
	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Key actions and targets: - Bike routes; Estimated CO_2 reduction target and costs: N/A;
	ENERGY EFFICIENCY REQUIREMENT/ STANDARDS	Key action and targets: -Usage of biofules in public transport; Estimated CO_2 reduction target: 1,104.8 to.; costs: N/A;
	AWARENESS RAISING AND LOCAL NETWORKING	Key actions and targets: -Education and change of behaviour of employes/users of public buildings; Estimated CO_2 reduction target: 283.2 to.; costs: 50,000.00 HRK/year; -Education on and promotion of EE for citizens; Estimated CO_2 reduction target: 213.4 to.; costs: 80,000.00 HRK; -Education and change of behaviour of of commercial and buisness sector; Estimated CO_2 reduction target: 91.8 to.; costs: 50,000.00 HRK/year; -Eco-driving education for drivers; Estimated CO_2 reduction target: 552.4 to.; costs: 30,000.00 HRK;
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Staff which was working on Conurbant project will continue working on SEAP implementation. The team for monitoring evaluation will be developed. Within the City there is an expert capable of completing this task.
	Involvement of stakeholders and citizens	Stakeholders and citizens were involved throughout the implementation of Conurbant project through development of SEAP measures (forums, energy days) and will be involved in implementation of SEAP through the educational measures.
	Overall estimated budget	N/A
	Foreseen financing sources for the investments	Town budget EU Structural Funds PPP (Public-Private Partnership) Croatian Bank for Reconstruction and Development Fund for Environmental Protection and Energy Efficiency ESCO models CIP/IEE, FP7 – Horizon 2020 CONCERTO
	Planned measures for monitoring and follow up	Indicators and results defined in SEAP. Monitoring team.
Actions selected to be implemented within the first year after finalization of the SEAP	1.Bicycle routes – 500,000.00 EUR; 2.Public lighting, 1,5 km of new EE lighting – 100,000.00 EUR; 3.Smart City Grid/EE info; 4. Study on town traffic and mobility;	
Web address:	N/A	
Contact details:	**Town of Beli Manastir**	

	Kornelija Pacanović Zvečevac - Head of Department for constructon and communal issues; Tel: +385.31.710.210 and e-mail: k.zvecevac@beli-manastir.hr

3. BELIŠĆE

Conurbation:	**OSIJEK CONURBATION**	
Municipality:	**Municipality of Belišće**	
Population:	**Number of population in 2011 -10,790 inhabitants**	
BEI year:	**2009**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 92,733.89 MWh /CO_2 emissions: 17,643.63t**	
Details related to the public dabate on SEAP	September 11th 2013, 37 participants were interested in the topic and gave their suggestions on development of SEAP measures, main topic were presentation of BEI, current status and what could be better, which measures would be best implemented in the Town in order to decrease CO_2 emissions, mostly interested in the topic were the representatives of private sector dealing with energy efficiency and heating systems.	
Approval of SEAP by local authority	Town Council decision, **December 16th 2014** Indicate the direct link to the website of the local authority where you can find the decision approving the SEAP – link will be provided after publishing it on the web	
Overall CO_2 emission reduction target by 2020	**21 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	All measures stated in the SEAP represent the goal and vision set by the City/municipality to tackle with CO_2 emissions and energy consumption as well as having in mind the global picture of achieving high standards in environmental protection and sustainable development.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES	Key actions and targets: -Installation of thermometers in all rooms of public buildings; Estimated CO_2 reduction target: 5.80 to.; costs: 10,000.00 HRK; -Thermal insulation of facades and roofs for 7 public buildings; Estimated CO_2 reduction target: 32.82 to.; estimated costs: 480,000.00 HRK; -Installation of energy efficient carpentry (windows) for 8 public buildings; Estimated CO_2 reduction target: 38.05 to.; estimated costs: 1,590,000.00 HRK -Installation of thermostats in all public buildings; Estimated CO_2 reduction target: 25.48 to.; estimated costs: 128,320.00 HRK; -Green public procurement for procurement of appliances for public buildings; Estimated CO_2 reduction target: 3.47 to.; estimated costs: 0,00 HRK; -Energy efficient lightbulbs in all public buildings; Estimated CO_2 reduction target: 2.53 to.; costs: 0,00 HRK; -Energy audits and certification of all public buildings; Estimated CO_2 reduction target: 5.13 to.; estimated costs: 5,000.00 HRK; -Development of small PV systems (up to 30kW) on roofs of public buildings; Estimated CO_2 reduction target: 25.84 to.; estimated costs: 400,000.00 HRK; -Modernization of boiler rooms/heating systems (more efficient low temperature systems) in public buildings; Estimated CO_2 reduction target: 20.52 to.; estimated costs: 2,500,000.00 HRK; -Heating/cooling systems, thermomechanical systems and installation; Estimated CO_2 reduction target: 39.55 to.; estimated costs: N/A;

	TERTIARY	Key actions and targets: -Installation of solar systems; Estimated CO_2 reduction target: 433.02 to.; estimated costs: N/A; -Switch to energy efficient light bulbs; Estimated CO_2 reduction target: 158.59 to.; estimated costs: 0.00 HRK; -City Councils' decision on lowering the communal contribution for building the new low energy and passive buildings for commercial use; Estimated CO_2 reduction target: 433.02 to.; estimated costs: 0.00 HRK; -Development of small PV systems (up to 30kW) on roofs of commercial buildings; Estimated CO_2 reduction target: 51.03 to.; estimated costs: 260,.000.00 HRK; -Thermal insulation of facades and roofs for commercial buildings; Estimated CO_2 reduction target: 63.18 to.; estimated costs: 846,000.00 HRK;
	RESIDENTIAL BUILDINGS	Key actions and targets: -Thermal insulation of facades and roofs; Estimated CO_2 reduction target: 488.12 to.; estimated costs: 10,560,000.00 HRK; -Incentives for usage of RES in hoseholds; Estimated CO_2 reduction target: 119.26 to.; estimated costs: 2,100,000.00 HRK; -Installation of thermostats for radiators in apartment buildings; Estimated CO_2 reduction target: 228.53 to.; estimated costs: 1,928,160.00 HRK; -Switch to A+++ and other higly energy efficient appliances in households; Estimated CO_2 reduction target: 355.30 to.; estimated costs: N/A; -Change to energy efficient light bulbs in households; Estimated CO_2 reduction target: 385.99 to.; estimated costs: 0.0 HRK -Development of small PV systems (up to 30kW) on roofs of apartment buildings; Estimated CO_2 reduction target: 61.37 to.; estimated costs: 322,264.00 HRK; -City Council decision on lowering the communal contribution for building the new low energy and passive houses; Estimated CO_2 reduction target: 1,103.26; estimated costs: 0.00 HRK;
	PUBLIC LIGHTNING	Key actions and targets: -Switching of old outdated lighting with energy efficient and ecologicaly acceptable lighting systems; Estimated CO_2 reduction target: 45.87 to.; estimated costs: 12,900,528.00 HRK; -Smart systems in public lighting; Estimated CO_2 reduction target: 18.44 to.; estimated costs: N/A;
Other sectors or field of actions covered by SEAP	MUNICIPAL FLEET	Key action and target: -Green public procurement in procuring the municipal fleet; Estimated CO_2 reduction target: 0.20 to.; estimated costs: 0,00 HRK;
	PUBLIC TRANSPORT	Key actions and targets: -Quota of 10% of usage of biofules in public transport; Estimated CO_2 reduction target: 500.12 to.; costs: legislative measure without investment costs; -Promotion of E-mobility measures; Estimated CO_2 reduction target and costs: N/A; -Introducing the system of payment for parking in the city; Estimated CO_2 reduction target: 129.03 to.; costs: N/A;
	PRIVATE AND COMMERCIAL TRANSPORT	Key action and target: Car-sharing model; Estimated CO_2 reduction target: 229.53 to.; costs: N/A;

	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Key action and target: -Group measures for improvement of bicycle transport in the City; Estimated CO_2 reduction target: 164.70 to.; estimated costs: N/A;
	ENERGY EFFICIENCY REQUIREMENT/ STANDARDS	Key action and target: -Quota of 10% of usage of biofules in public transport; Estimated CO_2 reduction target: 500.12 to.; costs: legislative measure without investment cost;
	AWARENESS RAISING AND LOCAL NETWORKING	Key actions and targets: -Education and change of behaviour of employes/users of public builduings; Estimated CO_2 reduction target: 12.79 to.; costs: 35,000.00 HRK; -Education on and promotion of EE for citizens; Estimated CO_2 reduction target: 347.88 to.; costs: 56,000.00 HRK; -Promotional, informative and educational activities for improvement of traffic quality and reduction of CO_2 emissions in traffic; Estimated CO_2 reduction target: 168.39 to.; costs: 70,000.00 HRK;
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Staff which was working on Conurbant project will continue working on SEAP implementation. The team for monitoring evaluation will be developed. Within the City there is an expert capable of completing this task.
	Involvement of stakeholders and citizens	Stakeholders and citizens were involved throughout the implementation of Conurbant project through development of SEAP measures (forums, energy days) and will be involved in implementation of SEAP through the educational measures
	Overall estimated budget	NA
	Foreseen financing sources for the investments	Town budget EU Structural Funds PPP (Public-Private Partnership) Croatian Bank for Reconstruction and Development Fund for Environmental Protection and Energy Efficiency ESCO models CIP/IEE, FP7 – Horizon 2020 CONCERTO
	Planned measures for monitoring and follow up	Indicators and results defined in SEAP. Monitoring team.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Building of new bicycle routs; 2. Reconstruction of public lighting systems; 3. Energy audits and certification of all public buildings; 4. Construction of new energy efficient/passive swimming pools equipped with heat pumps and solar panels;	
Web address:	NA	
Contact details:	**TOWN OF BELIŠĆE** **Ljiljana Žigić -Head of the Department for spatial planning and construction** Tel: +385.31.400.615 and e-mail: lj.zigic@belisce.net	

4. DONJI MIHOLJAC

Conurbation:	**OSIJEK CONURBATION**	
Municipality:	**Municipality of Donji Miholjac**	
Population:	**Number of population in 2011 – 9,468 inhabitants**	
BEI year:	**2009**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 119,293.46 MWh / CO_2 emissions: 24,717.60 t**	
Details related to the public dabate on SEAP	September 11th 2013, 21 participant, participants were interested in the topic and gave their suggestions on development of SEAP measures, main topic were presentation of BEI, current status and what could be better, which measures would be best implemented in the Town in order to decrease CO_2 emissions, mostly interested in the topic were the representatives of schools	
Approval of SEAP by local authority	Town Council decision, **February 20th 2014** Indicate the direct link to the website of the local authority where you can find the decision approving the SEAP – link will be provided after publishing it on the web	
Overall CO_2 emission reduction target by 2020	**21,36 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	All measures stated in the SEAP represent the goal and vision set by the City/municipality to tackle with CO_2 emissions and energy consumption as well as having in mind the global picture of achieving high standards in environmental protection and sustainable development.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES	Key actions and targets: - Installation of thermometers in all rooms of public buildings; Estimated CO_2 reduction target:: 7.19 to.; costs: 10,000.00 HRK; -Thermal insulation of facades and roofs for 7 public buildings; Estimated CO_2 reduction target: 32.83 to.; estimated costs: 480,000.00 HRK; -Installation of energy efficient carpentry (windows) for 7 public buildings; Estimated CO_2 reduction target: 23.70 to; estimated costs: 990,000.00 HRK; -Installation of thermostats in all public buildings; Estimated CO_2 reduction target: 15.57 to.; estimated costs: 78,468.00 HRK; -Green public procurement for procurement of appliances for public buildings; Estimated CO_2 reduction target: 2.14 to.; estimated costs: 0,00 HRK; -Energy efficient lightbulbs in all public buildings; Estimated CO_2 reduction target: 1.55 to.; costs: 0,00 HRK; -Energy audits and certification of all public buildings; Estimated CO_2 reduction target: 3.65 to.; estimated costs: 5,000.00 HRK; -Development of small PV systems (up to 30kW) on roofs of public buildings; Estimated CO_2 reduction target: 17.77 to.; estimated costs: 200,000.00 HRK; -Modernization of boiler rooms/heating systems (more efficient low temperature systems) in public buildings; Estimated CO_2 reduction target: 20.52 to.; estimated costs: 2,500,000.00 HRK; -Heating/cooling systems, thermomechanical systems and installation; Estimated CO_2 reduction target: 18.69 to.; estimated costs: N/A;
	TERTIARY	Key actions and targets: -Installation of solar systems; Estimated CO_2 reduction target: 743.10 to.; estimated costs: N/A; -Switch to energy efficient light bulbs; Estimated CO_2 reduction target: 347.04; estimated costs: 0,00 HRK;

		-City Councils' decision on lowering the communal contribution for building the new low energy and passive buildings for commercial use; reduction tCO2: 743,24; estimated costs: 0,00 HRK -Development of small PV systems (up to 30kW) on roofs of commercial buildings; Estimated CO_2 reduction target: 51.03 to.; estimated costs: 700,000.00 HRK; -Thermal insulation of facades and roofs for commercial buildings; Estimated CO_2 reduction target: 278.16 to.; estimated costs: 846,000.00 HRK;
	RESIDENTIAL BUILDINGS	Key actions and targets: -Thermal insulation of facades and roofs; Estimated CO_2 reduction target: 578.58 to.; estimated costs: 12,240,000.00 HRK; -Incentives for usage of RES in hoseholds; Estimated CO_2 reduction target: 121.95; estimated costs: 2,100,000.00 HRK; -Installation of thermostats for radiators in apartment buildings; Estimated CO_2 reduction target: 271.41 to.; estimated costs: 2,240,420.00 HRK -Switch to A+++ and other higly energy efficient appliances in households; Estimated CO_2 reduction target: 815.90 to; estimated costs: N/A; -Change to energy efficient light bulbs in households; Estimated CO_2 reduction target: 386.06 to.; estimated costs: 0,00 HRK; -Development of small PV systems (up to 30kW) on roofs of apartment buildings; Estimated CO_2 reduction target: 61.37 to.; estimated costs: 322,264.00 HRK; -City Council decision on lowering the communal contribution for building the new low energy and passive houses; Estimated CO_2 reduction target: 411.53 to; estimated costs: 0,00 HRK;
	PUBLIC LIGHTNING	Key action and target: -Switching of old outdated lighting with energy efficient and ecologicaly acceptable lighting systems; Estimated CO_2 reduction target: 34.10 to.; estimated costs: 9,418,460.00 HRK; -Smart systems in public lighting; Estimated CO_2 reduction target: 22.74 to; estimated costs: N/A;
Other sectors or field of actions covered by SEAP	MUNICIPAL FLEET	Key action and target: -Green public procurement in procuring the municipal fleet; Estimated CO_2 reduction target: 0.53 to.; estimated costs: 0,00 HRK;
	PUBLIC TRANSPORT	Key actions and targets: -Quota of 10% of usage of biofules in public transport; Estimated CO_2 reduction target: 588.96 to.; costs: legislative measure without investment costs; -Promotion of E-mobility measures; Estimated CO_2 reduction target and costs: N/A; -Introducing the system of payment for parking in the city; Estimated CO_2 reduction target: 355.09 to.; costs: N/A;
	PRIVATE AND COMMERCIAL TRANSPORT	Key action and target: -Car-sharing model; Estimated CO_2 reduction target: 263.61 to.; costs: N/A;
	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY	Key action and target: -Group measures for improvement of bicycle transport in the City; Estimated CO_2 reduction target: 395.29 to.; estimated costs: N/A;

	PLANNING	
	ENERGY EFFICIENCY REQUIREMENT/ STANDARDS	Key action and target: -Quota of 10% of usage of biofules in public transport; Estimated CO_2 reduction target: 588.96 to.; costs: legislative measure without investment costs;
	AWARENESS RAISING AND LOCAL NETWORKING	Key actions and targets: -Education and change of behaviour of employes/users of public builduings; Estimated CO_2 reduction target: 5.48 to.; costs: 35,000.00 HRK -Education on and promotion of EE for citizens; Estimated CO_2 reduction target: 1,304.00; costs: 70,000.00 -Promotional, informative and educational activities for improvement of traffic quality and reduction of CO_2 emissions in traffic; Estimated CO_2 reduction target: 247.14 to.; costs: 70,000.00 HRK;
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Staff which was working on Conurbant project will continue working on SEAP implementation. The team for monitoring evaluation will be developed. Within the City there is an expert capable of completing this task.
	Involvement of stakeholders and citizens	Stakeholders and citizens were involved throughout the implementation of Conurbant project through development of SEAP measures (forums, energy days) and will be involved in implementation of SEAP through the educational measures.
	Overall estimated budget	NA
	Foreseen financing sources for the investments	Town budget EU Structural Funds PPP (Public-Private Partnership) Croatian Bank for Reconstruction and Development Fund for Environmental Protection and Energy Efficiency ESCO models CIP/IEE, FP7 – Horizon 2020 CONCERTO
	Planned measures for monitoring and follow up	Indicators and results defined in SEAP. Monitoring team.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Refurbishment of public lighting systems – EE lighting system; 2. Conducting energy audits and certification of public buildings; 3. EE refurbisment of public buildings (thermal insulation of roofs and facades, new ee carpentry); 4. Building of new bicycle and pedestrian routes;	
Web address:	NA	
Contact details:	**TOWN OF DONJI MIHOLJAC** **Dražen Trcović - Senior expert for spatial planning and construction** +385.31.631.120 ; e-mail: graditeljstvo@donjimiholjac.hr	

5. VINKOVCI

Conurbation:	**OSIJEK CONURBATION**	
Municipality:	**Municipality of Vinkovci**	
Population:	**Number of population in 2011 – 35, 375 inhabitants**	
BEI year:	**2011**	
Emission factors	Standard emission factor in line with the IPCC principles	
Results of BEI	**Final energy consumption: 381,325.00 MWh / CO_2 emissions: 79,300 to.**	
Details related to the public dabate on SEAP	September 25th 2013, 33 participants were interested in the topic and gave their suggestions on development of SEAP measures, main topic were presentation of BEI, current status and what could be better, which measures would be best implemented in the Town in order to decrease CO2 emissions, mostly interested in the topic were the representatives of schools	
Approval of SEAP by local authority	Town Council decision, **7th January 2014** The direct link to the website of the local authority where you can find the decision approving the SEAP – link will be provided after publishing it on the web	
Overall CO_2 emission reduction target by 2020	**21,06 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	All measures stated in the SEAP represent the goal and vision set by the City/municipality to tackle with CO_2 emissions and energy consumption as well as having in mind the global picture of achieving high standards in environmental protection and sustainable development.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES	Key actions and targets: -Installation of thermometers in all rooms of public buildings; Estimated CO_2 reduction target: 49.03 to; costs: 2,000.00 HRK; -Thermal insulation of facades and roofs for 15 public buildings; Estimated CO_2 reduction target: 165.50 to.; estimated costs: 2,400,000.00 HRK; -Installation of energy efficient carpentry (windows) for 15 public buildings; Estimated CO_2 reduction target: 72.41 to.; estimated costs: 3,000,000.00 HRK; -Installation of thermostats in all public buildings; Estimated CO_2 reduction target: 126.19 to.; estimated costs: 659,200.00 HRK; -Green public procurement for procurement of appliances for public buildings; Estimated CO_2 reduction target: 10.66 to.; estimated costs: 0,00 HRK; -Energy efficient lightbulbs in all public buildings; Estimated CO_2 reduction target: 14.21 to.; costs: 0,00 HRK; -Energy audits and certification of all public buildings; Estimated CO_2 reduction target: 52.12 to.; estimated costs: 420,000.00 HRK; -Development of small PV systems (up to 30kW) on roofs of public buildings; Estimated CO_2 reduction target: 33.92 to.; estimated costs: 400,000.00 HRK; -Modernization of boiler rooms/heating systems (more efficient low temperature systems) in public buildings; Estimated CO_2 reduction target: 20.92 to.; estimated costs: 2,500,000.00 HRK; -Heating/cooling systems, thermomechanical systems and installation; Estimated CO_2 reduction target: 94.13 to.; estimated costs: N/A;
	TERTIARY	Key actions and targets: -Installation of solar systems; Estimated CO_2 reduction target: 4,567.54 to.; estimated costs: N/A; - Switch to energy efficiient light bulbs;

		Estimated CO_2 reduction target: 1,375.33 to.; estimated costs: 0,00 HRK; -City Councils' decision on lowering the communal contribution for building the new low energy and passive buildings for commercial use; Estimated CO_2 reduction target: 912.34 to.; estimated costs: 0,00 HRK; -Development of small PV systems (up to 30kW) on roofs of commercial buildings; Estimated CO_2 reduction target: 51.03 to.; estimated costs: 700,000.00 HRK; -Thermal insulation of facades and roofs for commercial buildings; Estimated CO_2 reduction target: 461.58 to.; estimated costs: 8,588,376.00 HRK;
	RESIDENTIAL BUILDINGS	Key actions and targets: -Thermal insulation of facades and roofs; Estimated CO_2 reduction target: 610.81 to.; estimated costs: 11,272,488.00 HRK; -Incentives for usage of RES in households; Estimated CO_2 reduction target: 69.91 to.; estimated costs: 2,100,000.00 HRK; -Installation of thermostats for radiators in apartment buildings; Estimated CO_2 reduction target: 366.46 to.; estimated costs: 2,637,762.00 HRK; -Switch to A+++ and other higly energy efficient appliances in households; Estimated CO_2 reduction target: 4,727.75 to.; estimated costs: N/A ; -Change to energy efficient light bulbs in households; Estimated CO_2 reduction target: 2,917.66; estimated costs: 0,00 HRK; -Development of small PV systems (up to 30kW) on roofs of apartment buildings; Estimated CO_2 reduction target: 135.66 to.; estimated costs: 700,000.00 HRK; -City Council decision on lowering the communal contribution for building the new low energy and passive houses; Estimated CO_2 reduction target: 2,409.76; estimated costs: 0,00 HRK;
	PUBLIC LIGHTNING	Key actions and targets: -Switching of old outdated lighting with energy efficient and ecologicaly acceptable lighting systems; Estimated CO_2 reduction target: 188.63 to.; estimated costs: 9,418,460.00 HRK; -Smart systems in public lighting; Estimated CO_2 reduction target: 94.31 to.; estimated costs: N/A;
Other sectors or field of actions covered by SEAP	MUNICIPAL FLEET	Key actions and targets: -Green public procurement in procuring the municipal fleet; Estimated CO_2 reduction target: 0.44 to.; estimated costs: 0,00 HRK;
	PUBLIC TRANSPORT	Key actions and targets: -Quota of 10% of usage of biofules in public transport; Estimated CO_2 reduction target: 2,042.96 to.; costs: legislative measure without investment costs; -Promotion of E-mobility measures; Estimated CO_2 reduction target and costs: N/A; -Group of measures for improvement of bus transport in the City; Estimated CO_2 reduction target: 508.95 to.; costs: N/A;
	PRIVATE AND COMMERCIAL TRANSPORT	Key actions and targets: -Eco-driving campaign; Estimated CO_2 reduction target: 508.95 to.; costs: N/A; -Car-sharing model; Estimated CO_2 reduction target: 558.85 to.; costs: N/A;

	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Key action and target: -Group measures for improvement of bicycle transport in the City; Estimated CO_2 reduction target: 945.57 to.; estimated costs: N/A;
	ENERGY EFFICIENCY REQUIREMENT/ STANDARDS	Key actions and targets: -Regulation and implementation – different technical requirements in construction of new buildings; Estimated CO_2 reduction target: 146.88 to.; costs: no costs/legislative measure; -Energy audits of heating/cooling systems; Estimated CO_2 reduction target: 26.07 to; costs: no costs/legislative measure;
	AWARENESS RAISING AND LOCAL NETWORKING	Key actions and targets: -Education and change of behaviour of employes/users of public buildings; Estimated CO_2 reduction target: 52.15 to.; costs: 28,000.00 HRK; -Education on and promotion of EE for citizens; Estimated CO_2 reduction target: 2,065.34 to.; costs: 42,000.00 HRK; -Promotional, informative and educational activities for improvement of traffic quality and reduction of CO_2 emissions in traffic; Estimated CO_2 reduction target: 686.76 to.; costs: 70,000.00 HRK;
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Staff which was working on Conurbant project will continue working on SEAP implementation. The team for monitoring evaluation will be developed. Within the City there is an expert capable of completing this task.
	Involvement of stakeholders and citizens	Stakeholders and citizens were involved throughout the implementation of Conurbant project through development of SEAP measures (forums, energy days) and will be involved in implementation of SEAP through the educational measures.
	Overall estimated budget	NA
	Foreseen financing sources for the investments	Town budget EU Structural Funds PPP (Public-Private Partnership) Croatian Bank for Reconstruction and Development Fund for Environmental Protection and Energy Efficiency ESCO models CIP/IEE, FP7 – Horizon 2020 CONCERTO
	Planned measures for monitoring and follow up	Indicators and results defined in SEAP. Monitoring team.
Actions selected to be implemented within the first year after finalization of the SEAP	1.Energy audits of four public buildings, commercial rental spaces owned by the City and schools; 2. Construction of 30 km of bicycle routs; 3. Study on efficiency of communal heating system;	
Web address:	N/A	
Contact details:	**CITY OF VINKOVCI** **Ivan Ereš - Expert associate** Tel: +385.32.493.307 and e-mail: ivan.eres@vinkovci.hr	

CYPRUS:

LIMASSOL CONURBATION SEAPs IN FIGURES:

Conurbation Town/ Municipality	Population	BEI year:	Final energy consumption (MWh)	CO2 emissions: (tones)	CO2 emission reduction target by 2020	CO2 Proposed reduction (tones)	Budget EURO
LIMASSOL	101,000	2009	1,711,793	703,132	20%	177,500.0	2,328,900
KATO POLEMIDIA	23,000	2009	310,707	116,023	20%	23,204.6	210,258
YERMASOYIA	13,500	2009	259,721	116,261	20%	23,252.2	174,000
MESA YITONIA	14,500	2009	229,692	87,308	20%	17,461.6	2,328,900
TOTAL:	**152,000**		**2,511,913**	**1,022,724**		**241,418.4**	**5,042,058**

1. LIMASSOL MUNICIPALITY:

Conurbation:	**LIMASSOL CONURBATION**	
Municipality:	**MUNICIPALITY OF LIMASSOL**	
Population:	**101,000**	
BEI year:	**2009**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 1,711,793 MWh / CO_2 emissions: 703,132 to.**	
Approval of SEAP by local authority	**Approved on 37th Council meeting on 28 Nov 2013, Decision number 379.**	
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	The Municipality will prioritize actions that conform with the Urban Development Plan 2011-2016.	
SEAP actions in key sectors:	MUNICIPAL	1) Town Hall: -Installation of Insulation -Light bulbs replacement -Installation of power factor corrector -Maintenance of heating and cooling systems 2) Garden Theatre -Installation of power factor corrector 3) Industrial Area Building -Installation of power factor corrector 4) Financial department building -Installation of Insulation -Installation of power factor corrector -Maintenance of heating and cooling systems 5) Municipal Market -Light bulbs replacement 6) Gallery -Light bulbs replacement 7) Health Inpectors Building -Photovoltaics installation 3 KW 8) Zoo -Photovoltaics installation 3 KW -Photovoltaics installation 3 KW on sunshields 9) Folk art museum -Photovoltaics installation 3 KW -Light bulbs replacement 10) Cleaning department offices -Photovoltaics installation 3 KW 11) Energy saving awareness seminar to municipal workers

		12) Replacement of current street lighting with LED system 13) Optimization of street lighting 14) Tree planting 15)Bush planting 16) Maintenance of green areas Costs: 1,690,500 EURO Estimated CO_2 reduction: 177,500 to.;
	RESIDENTIAL	1) Citizens seminar on energy efficiency 2) Citizens seminar on renewable energy sources 3) Student seminar on energy efficiency 4) Recycling day 5) RES Information on Municipality website and newspaper 6) TV and radio campaigns on energy efficiency
	TERTIARY	1) Citizens seminar on energy efficiency 2) Citizens seminar on renewable energy sources 3) Recycling day 4) RES Information on Municipality website and newspaper 5) TV and radio campaigns on energy efficiency
	TRANSPORT	1) Cycling day 2) Green car day 3) Free parking to hybrid or electric vehicle 4) Installation of electic vehicle charging stations 5) New walkpaths 6) New bicycle roads 7) Eco driving seminar to Municipality personnel 8) Study to replace old cars in municipal fleet with hybrids 9) Installation of GPS tracking devices on municipal fleet
Organizational and financial aspects:	Coordination and organizational structurescreated/ assigned Staff capacity allocated	The Energy Team of the Municipality was created for the coordination of the SEAP. The team is consisted by administrative, economic department, technical, health environment staff and representatives of the council and the citizens
	Involvement of stakeholders and citizens	The citizens are represented in the Energy Team.
	Overall estimated budget	2,328,900 EURO
	Foreseen financing sources for the investments within your SEAP	Municipal Budget, EU Structural Funds, ELENA Facility.
	Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years.
Actions selected to be implemented within the first year after finalization of the SEAP	1) New walkpaths 2) New bicycle roads 3) Installation of GPS tracking devices on municipal fleet 4) Tree planting 5)Bush planting 6) Maintenance of green areas	
Web address:	http://www.limassolmunicipal.com.cy/index_en.html http://www.eumayors.eu/about/signatories_en.html?city_id=3352&seap	
Contact details:	**MUNICIPALITY OF LIMASSOL** **Christina Constantinou Zanti -** European Affairs Office Municipality of Limassol Officer, Tel: +357 25 340485 / 25 342330, eurolemesos@cytanet.com.cy	

2. KATO POLEMIDIA:

Conurbation:	**LIMASSOL CONURBATION**	
Municipality:	**MUNICIPALITY OF KATO POLEMIDIA**	
Population:	**23,000**	
BEI year:	**2009**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 310,707 MWh; / CO_2 emissions: 116,023 to;**	
Approval of SEAP by local authority	**Approved on 13th Council meeting on 7 Nov 2013.**	
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	The Municipality will prioritize actions that conform with the Urban Development Plan 2011-2016	
SEAP actions in key sectors:	MUNICIPAL	1) Municipal Amphitheatre -Installation of insulation -Light bulbs replacement -Maintenance of heating and cooling systems 2) Lab -Maintenance of heating and cooling systems 3) Town Hall -Light bulbs replacement -Maintenance of heating and cooling systems 4) Health inpectors and traffic police officers building -Maintenance of heating and cooling systems 5) Shop -Maintenance of heating and cooling systems 6) Lecture Hall -Maintenance of heating and cooling systems 7) Shop -Maintenance of heating and cooling systems 8) Technical services buildings -Installation of Insulation -Light bulbs replacement -Maintenance of heating and cooling systems -Photovoltaics installation 3 KW 9) Library -Maintenance of heating and cooling systems 10) Energy saving awareness seminar to municipal workers 11) Replacement of current street lighting with LED system 12) Optimization of street lighting 13) Tree planting 14)Bush planting 15) Maintenance of green areas Costs: 26,258 EURO Estimated CO_2 reduction: 17,13 to.;
	RESIDENTIAL	1) Citizens seminar on energy efficiency 2) Citizens seminar on renewable energy sources 3) Student seminar on energy efficiency 4) Recycling day 5) RES Information on Municipality website and newspaper 6) TV and radio campaigns on energy efficiency
	TERTIARY	1) Citizens seminar on energy efficiency 2) Citizens seminar on renewable energy sources 3) Recycling day 4) RES Information on Municipality website and newspaper 5) TV and radio campaigns on energy efficiency
	TRANSPORT	1) Cycling day

		2) Green car day 3) Free parking to hybrid or electric vehicle 4) Installation of electic vehicle charging stations 5) New walkpaths 6) New bicycle roads 7) Eco driving seminar to Municipality personnel 8) Study to replace old cars in municipal fleet with hybrids 9) Installation of GPS tracking devices on municipal fleet
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Energy Team of the Municipality was created for the coordination of the SEAP. The team is consisted by administrative, economic department, technical, health environment staff and representatives of the council and the citizens
	Involvement of stakeholders and citizens	The citizens are represented in the Energy Team.
	Overall estimated budget	210,258 EURO;
	Foreseen financing sources for the investments within your SEAP	Municipal Budget, EU Structural Funds, ELENA Facility
	Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years
Actions selected to be implemented within the first year after finalization of the SEAP	1) New walkpaths; 2) New bicycle roads; 3) Tree planting; 4) Bush planting; 5) Maintenance of green areas;	
Web address:	http://www.polemidiamunicipal.com.cy/el/page/home http://www.eumayors.eu/about/signatories_en.html?city_id=2133&seap	
Contact details:	**MUNICIPALITY OF KATO POLEMIDIA** **Skevi Paraskeva -** Senior Health Inspector Municipality of Kato Polemidia Tel: +357 25 821382, kpolemidia-mayor@cytanet.com.cy	

3. YERMASOYIA:

Conurbation:	**LIMASSOL CONURBATION**	
Municipality:	**MUNICIPALITY OF YERMASOYIA**	
Population:	**13,500**	
BEI year:	**2009**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 259,721 MWh / CO_2 emissions: 116,261 to.;**	
Details related to the public debate on SEAP	**The public debate on Sustainable Energy Action Plan approval - Completed**	
Approval of SEAP by local authority	**Approved by the council on 06.02.2014**	
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	The Municipality will prioritize actions that conform with the Urban Development Plan 2011-2016.	
SEAP actions in key sectors:	MUNICIPAL	1) Main Building -Installation of Insulation -Light bulbs replacement

		-Maintenance of heating and cooling systems 2) Technical Services Building -Maintenance of heating and cooling systems -Photovoltaics installation 3 KW 3) Health Services -Maintenance of heating and cooling systems 4) Community center -Installation of Insulation -Light bulbs replacement -Maintenance of heating and cooling systems -Photovoltaics installation 3 KW 5) Warehouses -Light bulbs replacement 6) Municipal stadium -Photovoltaics installation 3 KW 7) Energy saving awareness seminar to municipal workers 8) Replacement of current street lighting with LED system 9) Optimization of street lighting 10) Tree planting 11)Bush planting 12) Maintenance of green areas Costs: 25,400 EURO Estimated CO_2 reduction: 28,02 to.;
	RESIDENTIAL	1) Citizens seminar on energy efficiency 2) Citizens seminar on renewable energy sources 3) Student seminar on energy efficiency 4) Recycling day 5) RES Information on Municipality website and newspaper 6) TV and radio campaigns on energy efficiency
	TERTIARY	1) Citizens seminar on energy efficiency 2) Citizens seminar on renewable energy sources 3) Recycling day 4) RES Information on Municipality website and newspaper 5) TV and radio campaigns on energy efficiency
	TRANSPORT	1) Cycling day 2) Green car day 3) Free parking to hybrid or electric vehicle 4) Installation of electic vehicle charging stations 5) New walkpaths 6) New bicycle roads 7) Eco driving seminar to Municipality personnel 8) Study to replace old cars in municipal fleet with hybrids 9) Installation of GPS tracking devices on municipal fleet
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Energy Team of the Municipality was created for the coordination of the SEAP. The team is consisted by administrative, economic department, technical, health environment staff and representatives of the council and the citizens
	Involvement of stakeholders and citizens	The citizens are represented in the Energy Team.
	Overall estimated budget	174,000 EURO
	Foreseen financing sources for the investments	Municipal Budget, EU Structural Funds, ELENA Facility.

	within your SEAP	
	Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years.
Actions selected to be implemented within the first year after finalization of the SEAP	1) New walkpaths; 2) New bicycle roads; 3) Tree planting; 4) Bush planting; 5) Maintenance of green areas;	
Web address:	http://www.yermasoyia.org/ http://www.eumayors.eu/about/signatories_en.html?city_id=5204&seap	
Contact details:	**MUNICIPALITY OF YERMASOYIA** **Timos Misseris** - Senior Health Inspector Municipality of Yermasoyia Tel: +357 25 879898, yermasoyia.health@cytanet.com.cy , tmisseris@primehome.comm	

4. MESA YITONIA:

Conurbation:	**LIMASSOL CONURBATION**	
Municipality:	**MUNICIPALITY OF MESA YITONIA**	
Population:	**14,500**	
BEI year:	**2009**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 229,692 MWh / CO_2 emissions: 87,308 to;**	
Details related to the public debate on SEAP	**The public debate on Sustainable Energy Action Plan approval – Completed**	
Approval of SEAP by local authority	**Approved by the council on 11.03.2014**	
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	The Municipality will prioritize actions that conform with the Urban Development Plan 2011-2016	
SEAP actions in key sectors:	MUNICIPAL	1) Community Center and Library -Light bulbs replacement -Maintenance of heating and cooling systems 2) Town Hall -Installation of Insulation -Light bulbs replacement -Maintenance of heating and cooling systems -Photovoltaics installation 3 KW 3) Technical and Health inpectors offices -Light bulbs replacement -Maintenance of heating and cooling systems -Photovoltaics installation 3 KW 4) Building behind Town Hall -Light bulbs replacement 5) Energy saving awareness seminar to municipal workers 6) Replacement of current street lighting with LED system 7) Optimization of street lighting 8) Tree planting 9)Bush planting 10) Maintenance of green areas Costs: 16,330 EURO Estimated CO_2 reduction: 30,85 t.;
	RESIDENTIAL	1) Citizens seminar on energy efficiency 2) Citizens seminar on renewable energy sources 3) Student seminar on energy efficiency

		4) Recycling day 5) RES Information on Municipality website and newspaper 6) TV and radio campaigns on energy efficiency
	TERTIARY	1) Citizens seminar on energy efficiency 2) Citizens seminar on renewable energy sources 3) Recycling day 4) RES Information on Municipality website and newspaper 5) TV and radio campaigns on energy efficiency
	TRANSPORT	1) Cycling day 2) Green car day 3) Free parking to hybrid or electric vehicle 4) Installation of electic vehicle charging stations 5) New walkpaths 6) New bicycle roads 7) Eco driving seminar to Municipality personnel 8) Study to replace old cars in municipal fleet with hybrids 9) Installation of GPS tracking devices on municipal fleet
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Energy Team of the Municipality was created for the coordination of the SEAP. The team is consisted by administrative, economic department, technical, health environment staff and representatives of the council and the citizens
	Involvement of stakeholders and citizens	The citizens are represented in the Energy Team.
	Overall estimated budget	2,328,900 EURO;
	Foreseen financing sources for the investments within your SEAP	Municipal Budget, EU Structural Funds, ELENA Facility.
	Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years
Actions selected to be implemented within the first year after finalization of the SEAP	1) New walkpaths; 2) New bicycle roads; 3) Tree planting; 4) Bush planting; 5) Maintenance of green areas;	
Web address:	http://www.limassolmunicipal.com.cy/index_en.html	
Contact details:	**MUNICIPALITY OF MESA YITONIA** **Pantelitsa Mavromati -** Senior Health Inspector Municipality of Mesa Yitonia Tel: +357 25 723597, info@mesayitonia.com.cy , health@mesayitonia.com.cy	

ITALY

PADOVA CONURBATION SEAPS IN FIGURES:

Conurbation Town/ Municipality	Population	BEI year:	Final energy consumption (MWh)	CO2 emissions: (tones)	CO2 emission reduction target by 2020	CO2 Proposed reduction (tones)	Budget EURO
RUBANO	15,606	2006	310,595	89,835	20%	18,265	23,184,489
DUE CARRARE	8,958	2010	158,464	42,884	20%	8,577	18,214,498
PONTE SAN NICOLÒ	13,325	2009	241,128	63,165	20%	12,633	96,550,663*
VIGONZA	22,008	2010	417,442	115,403	20%	23,080	18,389,985
TOTAL:	**59,897**		**1,127,629**	**311,287**		**62,555**	**156,339,635**

*EURO 79.5 million relate to the new Tram line of the City of Padua and costs will not be in charge of the Municipality of Ponte San Nicolò

1. MUNICIPALITY OF RUBANO:

Conurbation:	**PADOVA CONURBATION**	
Municipality:	**MUNICIPALITY OF RUBANO**	
Population:	**15,606**	
BEI year:	**2006**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 310,595 MWh / CO_2 eq emissions: 89,835 t CO_2e;**	
Details related to the public debate on SEAP	During the first forum (18.06.2013) with stakeholders has been explained the road taken by the City of Rubano for the preparation of its Plan of Action. The Technical partner SOGESCA presented the results of the Inventory of Emissions of the City of Rubano, at the presence of the Co-ordinator, the Councillor Lorenzo Segato and the technical officers Pietro Baldan. The stakeholders present, representing Legambiente, CNA Padova, Confinfustria Padova and other as Confartigianato and ACLI, have expressed their position collaborative implementation of some actions that directly affect them. The Administration has taken the opportunity to develop a program of energy efficiency measures and energy production that will directly affect the actions it intends to develop. The City of Rubano is involved in the development of the new electric tram way with Padua Municipality. In addition to this, the City is working on energy efficiency for public lighting systems and energy of the new regulation for private construction.	
Approval of SEAP by local authority	SEAP Approved in November 26, 2013 – Resolution n. 46 of the City Council	
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**	
Long-term vision of the local authority (priority areas of action, main trends and challenges)	The sector with the greatest impact on emissions is transport, so an important action in terms of public transport will be the one concerning the project on Metrotram connection Rubano-Padova. Other projects are planned in the production of electricity from photovoltaic efficiency of the boilers in private residential building and energy efficiency for buildings of the Public Administration.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Photovoltaic systems of public administration; -Public lighting: energy efficiency measures; -Resetting of mixed waste in landfills; Costs estimated: Not available yet; Estimated CO_2 reduction target per sector in 2020: more than 1,750 t CO_2e;

	RESIDENTIAL	Key actions and targets: -Energy Efficiency Energy Regulation; -TEE energy efficiency and thermal Account; -Installing solar power plants in the energy bill Residential; Costs estimated: Not available yet; CO_2 reduction target per sector in 2020: more than 7,757 t CO_2e;
	TERTIARY	Key actions and targets: - Installing photovoltaic energy bill in the tertiary sector ; Costs estimated: Not available yet; CO_2 reduction target per sector in 2020: 496 t CO_2e;
	TRANSPORT	Key actions and targets: - Efficiency of the park private vehicles - New line Metrotram Costs estimated: Not available yet; CO_2 reduction target per sector in 2020: 2,961 t CO_2e;
Other sectors or field of actions covered by SEAP	Information and spreading good practices to citizens and operators industry	-Energy efficiency in the industrial sector in collaboration with Confindustria Padova;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Public works office and environment area.
	Involvement of stakeholders and citizens	Round table with stakeholders in June 18,2013
	Overall estimated budget	23,184,489 EURO (from 2007 to 2020);
	Foreseen financing sources for the investments within your SEAP	ESCO Private Partnership
	Planned measures for monitoring and follow up	New guidelines for monitoring SEAP.
Actions selected to be implemented within the first year after finalization of the SEAP	- Purchase of electricity from renewable sources; - Energy efficiency of public lighting; - Planting Trees Campaign "A tree for every born"; - Energy efficiency by TEE and „Conto termico”;	
Web address:	*www.comune.rubano.pd.it* *http://www.eumayors.eu/about/signatories_en.html?city_id=1228&seap*	
Contact details:	**Assessor Lorenzo Segato** Tel. 049 8739219, Email: lorenzo.segato@rubano.it	

2. MUNICIPALITY OF DUE CARRARE:

Conurbation:	**PADOVA CONURBATION**	
Municipality:	**MUNICIPALITY OF DUE CARRARE**	
Population:	**8,958**	
BEI year:	**2010**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 158,464 MWh / CO_2 eq emissions: 42,884 to.;**	
Details related to the public debate on SEAP	Due Carrare Municipality started its experience with the SEAP debate in 2013 thanks to the organization of the Energy Week, with the partecipation of the Municipality of Padova, SOGESCA Srl as technical partner of the CONURBANT Project and other Municipalities of the Area nemed „Bacino Padova Sud" which were very interested in the coomprehension of the SEAP process development. During the 2013-2014 period, Municipality of Due Carrare was involved in the preparation of its Baseline Inventory Emission and the development of the Action that are contained in the SEAP, approved by the City Council on May 9, 2014.	
Approval of SEAP by local authority	SEAP approved in Local Council Meeting on 8th of May 2014.	
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**	
Long-term vision of the local authority	The long-term vision of the Municipality of Due Carrare concern in the elaboration of actions really connected with the needs of the local community. For this reason, the actions present in the SEAP are related to different sectors as: energy efficiency measures on public lighting system, energy efficiency measures on public buildings (insulation, windows replacement, heating plant replacement, installation of geothermal an PV plants), cycle paths, solution related to the mobility of the students for "home to schools" path, PV plant installation in private sectors, solar thermal installation in private sector, improvement of new technologies for the urban planning development (new zero impact neighborhoods), trees planting etc.	
SEAP actions in key sectors:	MUNICIPAL	- Energy efficiency on public buildings (School „Aldo Moro" and Nursey „Cesta dei Cuccioli") - Energy efficiency measure on public lighting systema (replacement of all lamps with new one LED technologies); - Mobility of the students for *home to schools* path; - Trees planting.
	RESIDENTIAL	- Energy efficiency measures on residential buildings: insulation, windows replacement, heating plant replacement, electricity energy use, PV plant installation.
	TERTIARY	- Energy efficiency on the electricity energy use in tertiary sector: appliances and new technologies for heat/cold
	TRANSPORT	- Cycle paths; - Energy efficiency of the private vehicle fleet;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Public Administration created a task force for the collection of data consumption and for the drafting of the action contained in the SEAP.
	Involvement of stakeholders and citizens	On february 4, 2014 the Municipality organized the Forum with the stakeholders of the area which partecipated proposing several actins that are contained in the SEAP
	Overall estimated budget	18,214,498 EURO
	Foreseen financing sources for the investments within your SEAP	Kyoto Found; ELENA Founding Programme; Regional Founds; Public Administration resources; Investments by privete citizens.

	Planned measures for monitoring and follow up	New Guideline of the Covenant of Mayors for monitoring the actions
Actions selected to be implemented within the first year after finalization of the SEAP	- Energy efficiency on public lighting; - Energy efficiency on public Buildings (Aldo Moro School and Cesta dei Cuccioli Nursey); - Cycle Paths; - Trees planting.	
Web address	www.comune.duecarrare.pd.it/	
Contact details:	**Assessor Claudio Garbo,** garbo.assessore@comune.duecarrare.pd.it	

3. MUNICIPALITY OF PONTE SAN NICOLÒ:

Conurbation:	**PADOVA CONURBATION**	
Municipality:	**MUNICIPALITY OF PONTE SAN NICOLÒ**	
Population:	**13,325**	
BEI year:	**2009**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 241,128 MWh / CO_2 eq emissions: 63,165 to;**	
Details related to the public debate on SEAP	First Forum scheduled on 05.11.2013	
Approval of SEAP by local authority	SEAP Approved on April 9 – 2014 by the City Council	
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**	
Long-term vision of the local authority	The vision regarding sustainable energy development of Ponte San Nicolò will be defined.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Photovoltaic systems on public buildings; -Energy efficiency of thermal plants on public buildings; -Purchase of renewable electricity for the public sector; -Bicycle paths; -Energy efficiency of public lighting; -Solar thermal plants; Costs 2,369,713 EURO; Estimated CO_2 reduction target per sector in 2020: 1,055 tCO_2;
	RESIDENTIAL	Key actions and targets: -Structural energy efficiency of buildings; -Energy efficiency of heating and cooling; -Installation of plants for the production of renewable; -Energy efficiency of appliances; Costs: 2.767.500 EURO; Estimated CO_2 reduction target per sector in 2020: 6,522 tCO_2;
	TERTIARY	Key action and target: - Installation of photovoltaic systems in the tertiary sector Costs: 2,756,550 EURO; Estimated CO_2 reduction target per sector in 2020: 513 to. CO_2;
	TRANSPORT	Key actions and targets: -Bycicle pats -Energy efficiency of private cars fleet -Student mobility -New tram line connecting Padua-Ponte San Nicolò Costs: 1.,350,000 EURO; Estimated CO_2 reduction target per sector in 2020: 2,647 to CO_2;

Other sectors or field of actions covered by SEAP	INDUSTRIAL	Key actions and targets: -Energy efficiency of the industrial sector -Production of renewable energy in the industrial sector Costs: 9,156,800 EURO; Estimated CO_2 reduction target per sector in 2020: 1,904 toCO_2;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Public works office and environment area
	Involvement of stakeholders and citizens	Round table with the stakeholders on November 6, 2013
	Overall estimated budget	96,550,663 EURO from 2011 to 2020
	Foreseen financing sources for the investments within your action plan	ESCO Private Partnership Investments by Public Administration
	Planned measures for monitoring and follow up	New guidelines for monitoring SEAP.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Energy efficiency on public lighting plants; 2. Bike plants; 3. Solar thermal plants;	
Web address:	http://www.comune.pontesannicolo.pd.it/	
Contact details:	**Assessor Capuzzo Adriano, capuzzo.adriano@gmail.com**	

4. MUNICIPALITY OF VIGONZA:

Conurbation:	**PADOVA CONURBATION**
Municipality:	**MUNICIPALITY OF VIGONZA**
Population:	**22,008**
BEI year:	**2010**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 417,442 MWh / CO_2 emissions: 115,403 to.;**
Details related to the public debate on SEAP	The first Forum for the City of Vigonza was held on 24.07.2013. At this Forum was attended by various stakeholders in the area divided by air of competence, in particular: Confocommercio, Independent appraisers of Padova, Adiconsum, Confindustria, Order of Architects, Board of Surveyors and Coldiretti Padova, the Mayor of Vigonza Nunzio Tacchetto, Enzo Ferrara leading the business segments for the management of the territory, Sebastiano Bugno, Antonio Buggin IUAV Venice and SOGESCA. The Administration has explained to the stakeholders the framework of the project Conurbant and joining the Covenant of Mayors initiative as well as the path taken by the Administration in the energy planning of actions for energy efficiency and renewable energy production. Were provided to present all the tools for participation in the drafting of sectoral actions to be slaughtered in fuel consumption and emissions that insist on the territory of Vigonza.
Approval of SEAP by local authority	SEAP Approved on March 31, 2014 by the City Council
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**
Long-term vision of the	The SEAP has represented the City of Vigo, a policy paper on energy efficiency in the

local authority	public administration energy use. The planned actions will cover all areas of the energy consumption in the Public Administration: energy efficiency of public buildings, energy efficiency in public lighting systems, photovoltaic power generation and solar thermal systems will be installed on public buildings, fleet management of PA efficiently, home-to-school through piedibus, new bike lanes.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Energy efficiency of building envelopes public; -Photovoltaic plants on public buldings; -Replacement of heating systems in public buildings; -Solar thermal plants on public buildings; -Energy efficiency on public lighting plants; - Cycle paths; - tree plantings; - Energy efficiency on Public Administration vehicle fleet; Costs and estimated CO_2 reduction target per sector in 2020: 3,917,325 EURO
	RESIDENTIAL	Structural energy efficiency of buildings; -Energy efficiency of heating and cooling; -Installation of plants for the production of renewable; -Energy efficiency of appliances; - Energy production in residential sector by PV and solar thermal plants; Costs and estimated CO_2 reduction target per sector in 2020: 4,109,090 EURO
	TERTIARY	Key action and target: - Energy efficiency of electricity use in commercial sector Costs and estimated CO_2 reduction target per sector in 2020: 3,757,470 EURO
	TRANSPORT	Key action and target: - Energy efficiency in private transport sector by CE 443/2009
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Public works office and environment area
	Involvement of stakeholders and citizens	Round table with the stakeholders on July 7, 2013
	Overall estimated budget	18,389,985 EURO from 2010 to 2020
	Foreseen financing sources for the investments within your SEAP	ESCO Private Partnership Investments by Public Administration
	Planned measures for monitoring and follow up	New guidelines for monitoring SEAP.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Energy efficiency of building envelopes public; 2. Photovoltaic plants on public buldings; 3. Replacement of heating systems in public buildings; 4. Solar thermal plants on public buildings;	
Web address:	www.comune.vigonza.pd.it	
Contact details:	**Enzo Ferrara,** urbanistica@comune.vigonza.pd.it, 049/8090311	

ITALY:
VICENZA CONURBATION:
VICENZA CONURBATION SEAPS IN FIGURES:

Conurbation Town/ Municipality	Population	BEI year:	Final energy consumption (MWh)	CO2 emissions: (tones)	CO2 emission reduction target by 2020	CO2 Proposed reduction (tones)	Budget EURO
VICENZA	115,853	2006	2,452,412	546,708	20%	97.137	162,230,000
MONTICELLO CONTE OTTO	9,280	2009	192,763	51,356	22%	12,106	16,445,659
SOVIZZO	7,300	2010	128,916	34,477	28%	7,729	10,472,821
CREAZZO	11,104	2010	229,628	61,372	21.6%	12,066	12,501,820
ARCUGNANO	7,944	2009	249,237	40,720	20%	8,299	8,001,480
TOTAL:	**151,481**		**3,252,956**	**734,633**		**137,337**	**209,651,780**

1. MUNICIPALITY OF VICENZA:

Conurbation:	**VICENZA CONURBATION**
Municipality:	**MUNICIPALITY OF VICENZA**
Population:	**115,853**
BEI year:	**2006**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 2,452,412 MWh / CO_2 emissions: 546,708 t CO_2e;**
Details related to the public debate on SEAP	20.12.2012, number of participants 23, the involvement of participants, indicating the main topics discussed and opinions expressed in the discussion: 1) Project management (the City of Vicenza as a leader will manage the entire project budget distributing it to the partners according to the instructions of the Agency, which finances the project); 2) Explain the current system of energy policies applied at the local level (capital, other towns) and observation (surveys) on the perception of the policies, strengths and weaknesses related to opportunities for intervention (eg energy saving, sources sources) and environmental risks (such as the "Global Warming"); inventory of CO_2 according to methods recognized by the guidelines produced by other IEE projects and other work groups; 3) Training for political actors and technicians and staff of public bodies involved 4) Development of a system of procedures and monitoring for environmental-economic accounting and to measure the results obtained; 5) SEAP preparation of financial statements, including actions involving the panel of neighboring municipalities, stakeholders and schools, with an approach "Peer to peer" and linking in an innovative and integrated the various parties involved; 6) Development of local experiences of specific instructions by the municipalities expert against municipalities inexperienced and start up of SEAP 7) Communication + publications and dissemination of results both at European level and at the local level.
Approval of SEAP by local authority	**Council Deliberation, the date of approval: 14.02.2013** **http://www.comune.vicenza.it/uffici/dipterr/ambiente/areetematiche/paes.php**
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**
Long-term vision of the local authority	The long-term strategy includes measures in the following areas: -Buildings, facilities; -Transport; -Local energy production; -District heating / cooling; -Land use; -Purchase of goods and services;

	-Involvement of citizens and stakeholders;	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: - photovoltaic systems of public administration - increase public green - Biomethane production from biowaste - Public lighting - Implementation of PICIL and other energy efficiency measures - Implementation of the Urban Mobility Plan - Cyclability Costs estimated: more than 2,500,000 EURO; Estimated CO_2 reduction target per sector in 2020: more than 21,000 tCO_2e;
	RESIDENTIAL	Key actions and targets: - Improved efficiency appliances - energy regulation for the residential sector - Integration network district heating sources renewable Costs estimated: more than 30,000,000 EURO; CO_2 reduction target per sector in 2020: more than 46,000 tCO_2e;
	TERTIARY	Key actions and targets: - Improved efficiency of plants air distribution commercial - Cogeneration plant civil hospital in Vicenza Costs estimated: more than 5,000,000 EURO; CO_2 reduction target per sector in 2020: 9,145 tCO_2e;
	TRANSPORT	Key actions and targets: - Replacing diesel buses with CNG vehicles - Sustainable mobility for workers Costs estimated: more than 10,000,000 EURO; CO_2 reduction target per sector in 2020: 7,500 t CO_2e;
	OTHER SECTORS	-Urban Mobility Plan; -District heating; -Production of renewable energy; -Energy efficiency in the residential sector;
	INDUSTRY	Industrial sector is not included in the SEAP Action.
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Financial instruments that will be used for the financing of the actions are: -Revolving funds; -Financing through third parties; -Leasing: operating / capital; -ESCO; -Public - Private Partnership.
	Involvement of stakeholders and citizens	In December 2012 the Municipality of Vicenza involved the stakeholders in a participatory forum in order to share the PEAS draft with main involved actors of the territory. Within January 8th 2013 was asked them to send to the Environment Staff all suggestions about proposed and possible new actions. All those suggestion were recognised and included in the final SEAP. After the approval from the City Council, the SEAP was re-presented to stakeholders and citizens on February 15th 2013.
	Overall estimated budget	162,230,000 EURO (from 2007 to 2020);
	Foreseen financing sources for the investments within your SEAP	ESCO Private Partnership

	Planned measures for monitoring and follow up	New guidelines for monitoring SEAP
Actions selected to be implemented within the first year after finalization of the SEAP	1. Energy efficiency of heating systems in public buildings 2. Energy efficient sewage treatment plants in collaboration with "Acque Vicentine" 3. Energy efficiency for public lighting plants	
Web address:	http://www.comune.vicenza.it/uffici/dipterr/ambiente/areetematiche/paes.php http://helpdesk.eumayors.eu/docs/seap/3508_1362322252.pdf	
Contact details:	**Danilo Guarti, Environment Dept. Municipality of Vicenza, Director** +39 0444 221535 and e-mail: dguarti@comune.vicenza.it	

2. MUNICIPALITY OF MONTICELLO CONTE OTTO:

Conurbation:	**VICENZA CONURBATION**
Municipality:	**MUNICIPALITY OF MONTICELLO CONTE OTTO**
Population:	**9,280**
BEI year:	**2009**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 192,763 MWh / CO_2 eq emissions: 51,356 t CO_2e;**
Details related to the public debate on SEAP	During the first forum (06.06.2013) with stakeholders has been explained the road taken by the City of Monticello for the preparation of its Plan of Action . The Technical partner SOGESCA presented the results of the Inventory of Emissions of the City of Monticello, at the presence of the Co-ordinator, the Councillor Christian Zocchetta and the technical officer Lucio Dalla Valle . The stakeholders present, representing Legambiente, CNA Vicenza, Confinfustria, Associazione Culturale Educazione Ambientale and other associations in the area have expressed their position collaborative implementation of some actions that directly affect them. These actions relate in detail above actions for dissemination and education organized by Legambiente in collaboration with the Schools of Monticello and information actions citizenship on new technologies for the production of renewable energy and energy efficiency by CNA Vicenza. The Administration has explained what are the actions that will directly affect the public sector, such as energy efficiency standards for school buildings and public lighting , the production of renewable energy photovoltaic and hydroelectric (mini hydro) , solar thermal installed on the sports hall and encourage commuting staff of the Public Administration through the use of bicycles as a means of transport for the public services.
Approval of SEAP by local authority	SEAP Approved on February 27, 2014 Resolution no. 7 of the City Council
Overall CO_2 emission reduction target by 2020	**22% by 2020** **Absolute reduction**
Long-term vision of the local authority	The long-term vision for the actions of the public administration mainly concerns actions in terms of energy efficiency. The most important one concerns the efficiency of public lighting . The goal of the Administration is to perform installations of sodium vapor lamps and LED technology to replace all mercury vapor lamps in the area of Monticello . This action is doubly important as the City of Monticello since 2008 makes purchases of renewable electricity for the users of public administration and avoided today thanks to this action , approximately 635 tons of CO2 emitted into the atmosphere. Another long-term action is very important for the City of Monticello is the connection of their existing bike paths with those of the City of Vicenza for the creation of a bike path that can be used in moving from the inner city to the capital city of Monticello , avoiding so in the warmer seasons using a car to get to the workplace which often is located in the city center of Vicenza.

SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: - photovoltaic systems of public administration - purchase of green electricity - Energy efficiency for public lighting - Bike paths Costs estimated: Not available yet; Estimated CO_2 reduction target per sector in 2020: more than 965 t CO_2e;
	RESIDENTIAL	Key actions and targets: - Replacement of boilers in the residential sector - Installing solar power plants in the energy bill Residential Costs estimated: Not available yet; CO_2 reduction target per sector in 2020: 5,554 t CO_2e;
	TERTIARY	Key actions and targets: - Installing photovoltaic energy bill in the tertiary sector Costs estimated: Not available yet; CO_2 reduction target per sector in 2020: 121 t CO_2e;
	TRANSPORT	Key actions and targets: - Efficiency of the park private vehicles - Bike paths and users Costs estimated: Not available yet; CO_2 reduction target per sector in 2020: Not available yet;
Other sectors or field of actions covered by SEAP	Information and spreading good practices to citizens and operators industry	Starting the campaign for the collection of information on energy efficiency measures in industry organized by Confindustria Vicenza Costs estimated: Not available yet; CO_2 reduction target per sector in 2020: Not available yet;
	OTHER SECTORS	Key actions and targets: - Photovoltaic system for energy production; - Improvement of the collection of waste; - Hydropower production; Costs and estimated 2,840,005 EURO; CO_2 reduction target per sector in 2020: 900 tCO_2;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Administration is improving their skills in terms of local energy planning with the help of all the offices that comprise: Public Works, Maintenance, Private Building, Department of Environment, Accounting and Statistics, Department of Government
	Involvement of stakeholders and citizens	Stakeholders were involved and for the formulation of the actions to be included in SEAP both during the presentation of the SEAP. Their participation was active and the actions proposed, have been included in SEAP.
	Overall estimated budget	16,445,659 EURO (from 2010 to 2020)
	Foreseen financing sources for the investments within your SEAP	ESCO Private Partnership
	Planned measures for monitoring and follow up	New guidelines for monitoring SEAP.
Actions selected to be implemented within the first year after finalization	1. Energy Efficiency for public lighting; 2. Bike paths; 3. Energy audit in public buildings improving the energy performance of heating systems;	

of the SEAP	
Web address:	www.comune.monticello.vi.it
Contact details:	**Lucio Dalla Valle** Tel. 0444/947578, Email: llpp@comune.monticello.vi.it

3. MUNICIPALITY OF SOVIZZO:

Conurbation:	**VICENZA CONURBATION**
Municipality:	**MUNICIPALITY OF SOVIZZO**
Population:	**7,300**
BEI year:	**2010**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 128,916 MWh / CO2 eq emissions: 34,477 t CO2e;**
Details related to the public debate onthe Sustainable Energy Action Plan	During the first forum (12.06.13) with stakeholders has been explained the road taken by the City of Sovizzo for the preparation of the SEAP. The Technical partner SOGESCA presented the results of the Inventory of Emissions of the City of Sovizzo, at the presence of the Co-ordinator, the Assessor Paolo Centofante and the technical officers Edoardo Bacchiocchi, Flavio Imbrunito and Antonella Vitale . The stakeholders present, representing Legambiente, CNA Vicenza, Confinfustria, ARPAV and other municipalities as Montecchio Maggiore (as an auditor) and Veneto Region Energy Office, have expressed their position about a collaborative implementation of some actions that directly affect them. In addition to this, ARPAV Veneto regional agency for air quality and the environment approved and certified emissions inventory of the municipality of Sovizzo. The Administration has taken the opportunity to develop a program of energy efficiency measures and energy production that will directly affect the actions it intends to develop. The City of Sovizzo is finishing his Energy certification process following the standard ISO 50001, Energy Management Systems applied to a public body. In addition to this, the City is working on energy efficiency for public lighting systems and energy of the new regulation for private construction.
Approval of SEAP by local authority	SEAP Approved on December 19, 2013
Overall CO2 emission reduction target by 2020	**28% by 2020** **Absolute reduction**
Long-term vision of the local authority	The long-term vision for the City of Sovizzo passes first from the certification process through the Public Management System ISO 50001. This will be an important step for changing the energy management of the Administration. This action is also to connect the actions to be undertaken in the private sector, such as support for information campaigns for the photovoltaic and solar thermal energy in building the new regulation, the increase of green areas, the reduction of waste production and increased recycling. As for the City of Monticello, also the City of Sovizzo is giving great importance to urban cycling as an action for the improvement of transport between the municipality and the capital city.

SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: - Energy Management System ISO 50001; - Energy efficiency of public lighting; - Energy efficiency of heating systems in public buildings; - Production of renewable energy from photovoltaic and solar thermal; - Improvement of green areas; - Energy regulation for private building sector; - Regulation on urban decor; - Energy audits for 6 industries in the area funded by the Administration; - Information campaigns for the public about energy efficiency in collaboration with CNA Vicenza; - Monitoring of the emissions inventory in collaboration with Veneto ARPAV; - Support of the Veneto Region Energy Office; Costs estimated: 8,959,827 EURO (not complete); CO_2 reduction target per sector in 2020: 5.926 (not complete);
	RESIDENTIAL	Key actions and targets: - Energy regulation for private building sector; - Regulation on urban decor; - Energy production solar/termhal in residential sector; Costs estimated: 9,724,827 EURO (not complete); CO_2 reduction target per sector in 2020: 5,875 (not complete);
	TERTIARY	Key actions and targets: - Information campaigns for the public about energy efficiency in collaboration with CNA Vicenza Costs estimated: not available yet; CO_2 reduction target per sector in 2020: not available yet;
	TRANSPORT	Key actions: -Bike paths; -Student mobility; Costs estimated: 85,000 EURO (not complete); CO_2 reduction target per sector in 2020: not available yet;
Other sectors or field of actions covered by SEAP	Insustries	Key actions: - Energy audits for 6 industries in the area funded by the Administration; Costs estimated: not available yet; CO_2 reduction target per sector in 2020: not available yet;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Administration is improving their skills in terms of local energy planning with the help of all the offices that comprise: Public Works, Maintenance, Private Building, Department of Environment, Accounting and Statistics, Department of Government.
	Involvement of stakeholders and citizens	The relationship with stakeholders, other institutions and citizenship is described in the first part of the table.
	Overall estimated budget	10,472,821 EURO (from 2011 to 2020);
	Foreseen financing sources for the investments within your SEAP	ESCO Private Partnership

	Planned measures for monitoring and follow up	New SEAP Guidlines.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Energy Management System ISO 50001; 2. Energy efficiency of public lighting; 3. Energy efficiency of heating systems in public buildings; 4. Energy regulation for private building sector;	
Web address:	www.comune.sovizzo.vi.it	
Contact details:	**Paolo Centofante** paolo.centofante@comune.sovizzo.vi.it,, Tel. 0444/1802121	

4. MUNICIPALITY OF CREAZZO:

Conurbation:	**VICENZA CONURBATION**	
Municipality:	**MUNICIPALITY OF CREAZZO**	
Population:	**11,104**	
BEI year:	**2010**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 229,628 MWh / CO_2 eq emissions: 61,372 t CO_2e;**	
Details related to the public debate on SEAP	The first Forum for the City of Creazzo was held on 19.06.13 in the presence of the Administration, the technical staff that is working on the planning of actions and stakeholders of the territory, were present among others: CNA Vicenza, Confagricoltura and Legambiente. The administration, in collaboration with the Municipality of Vicenza Sogesca and explained to stakeholders the Emission Inventory of the City of Creazzo and open discussion on possible actions for reducing emissions.	
Approval of SEAP by local authority	SEAP Approved on April 2, 2014 by the City Council.	
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**	
Long-term vision of the local authority	Municipality long term vision will be define.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: - Energy efficiency on public buildings (structures, boilers, windows and insulation); - Purchase of renewable electricity for the P.A. consumption; - Improving the collection of waste; - Energy efficiency on public lighting; - Tree planting; - Water distributors; - Solar thermal plant on Public Buildings; - PV plants on Public Buildings; - Energy audit on Public Buildings; Costs estimated: 511,604 EURO CO_2 reduction target per sector in 2020: 1,700 tCO_2
	RESIDENTIAL	Key actions and targets: - Solar/thermal production; - Structural energy efficiency in private building sector; - Boilers efficiency in private buildings sector; - PV plants in residential buildings; Costs estimated: 8,256,142 EURO; CO_2 reduction target per sector in 2020: 4,301 tCO_2

	TERTIARY	Key actions and targets: - PV plants in Commercial sector; - Energy efficiency of the electrical consumption; Costs estimated: 1,901,400 EURO CO_2 reduction target per sector in 2020: 1,781 tCO_2
	TRANSPORT	Key actions and targets: - Cycle paths; - Energy efficiency in private transport; - House to schools sustainable transport; Costs estimated: 705,174 EURO CO_2 reduction target per sector in 2020: 3,965 tCO_2
	INDUSTRY	Key actions and targets: - Energy efficiency in the industrial sector: electricity and thermal energy use; Costs estimated: NA CO_2 reduction target per sector in 2020: 1,272 tCO_2
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Administration is improving their skills in terms of local energy planning with the help of all the offices that comprise: Public Works, Maintenance, Private Building, Department of Environment, Accounting and Statistics, Department of Government
	Involvement of stakeholders and citizens	Round table with the stakeholders on June 19 - 2013
	Overall estimated budget	12,501,820 EURO
	Foreseen financing sources for the investments within your SEAP	ESCO Private Partnership Public Administration funds
	Planned measures for monitoring and follow up	New SEAP Guidlines.
Actions selected to be implemented within the first year after finalization of the SEAP	- Energy efficiency on public lighting; - Replacement of boilers for all public buildings; - Energy audit on public buildings;	
Web address:	www.comune.creazzo.vi.it	
Contact details:	**Patrick Montagna** montagna@comune.creazzo.vi.it, Tel. 0444/338257	

5. MUNICIPALITY OF ARGUGNANO:

Conurbation:	**VICENZA CONURBATION**
Municipality:	**MUNICIPALITY OF ARCUGNANO**
Population:	**7,944**
BEI year:	**2009**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 249,237 MWh / CO_2 eq emissions: 40,720 t CO_2e;**
Details related to the public debate on SEAP	The first Forum for the City of Arcugnano took place on 14.06.13 in the presence of the Administration, the technical staff that is working on the planning of actions and stakeholders of the territory, were present among others: CNA Vicenza, Confagricoltura , Legambiente and Confindustria Vicenza. The administration, in collaboration with the Municipality of Vicenza Sogesca and explained to stakeholders the Emission Inventory of the City of Arcugnano and open discussion on possible actions for reducing emissions. The City of Arcugnano from 2009

	acquired 100% of its electricity from renewable energy sources. With this action, the City has avoided emitting into the atmosphere about 720 tons of CO_2 from public electricity consumption. The administration has outlined what in recent years has already taken to reduce consumption and emissions of CO_2 into the atmosphere, affecting energy efficiency of public lighting, replacement of antiquated vehicles with more efficient vehicles, the planting and maintenance of green areas, school bus service for students in elementary and middle schools for the improvement of urban transport, photovoltaic system to be installed on the kindergarten, energy effciency of heating of public buildings and production of energy through the treatment of urban organic waste.	
Approval of SEAP by local authority	SEAP Approved on April 8, 2014 by the City Council	
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**	
Long-term vision of the local authority	The Arcugnano Municipality will be very focused over the next few years in advancing sustainability policies already adopted by the Administration. The effort will focus not only towards the sustainable management of consumption of public administration, but most of all to the involvement of the private sector in achieving the results of emission reduction.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Gradual replacement of all light inefficient in public lighting; -Replacement of boilers for all public buildings; -Bus service for students; -Construction of a cycle track; - Planting tree in the industrial area; - PV plants on public buildings; Costs estimated: 1,571,000 EURO CO_2 reduction target per sector in 2020: 239 tCO_2
	RESIDENTIAL	Key actions and targets: - Solar thermal energy production; - PV plants in residential sector; - Energy efficiency of structures, windows, insulation, boilers Costs estimated: 2,874,500 EURO; CO_2 reduction target per sector in 2020: 2,113 tCO_2;
	INDUSTRY	Key actions and targets: Energy efficiency in the industrial sector: electricity and thermal energy use; Costs estimated: NA CO_2 reduction target per sector in 2020: 962 tCO_2
	TRANSPORT	Key actions and targets: - Cycle paths; - Energy efficiency in private transport; - House to schools sustainable transport; Costs estimated: 1,260,000 EURO CO_2 reduction target per sector in 2020: 2,914 tCO_2
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Administration is improving their skills in terms of local energy planning with the help of all the offices that comprise: Public Works, Maintenance, Private Building, Department of Environment, Accounting and Statistics, Department of Government
	Involvement of stakeholders and citizens	Round table with the stakeholders on June 14, 2013
	Overall estimated budget	8,001,480 EURO

	Foreseen financing sources for the investments within your action plan	ESCO Private Partnership Public Administration funds
	Planned measures for monitoring and follow up	New SEAP Guidlines.
Actions selected to be implemented within the first year after finalization of the SEAP	- Replacement of 1 petrol cars 3 cars with propane gas; - Bike pahs; - Gradual replacement of all light fixtures inefficient public lighting;	
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Contact details:	**Assessor Giovanni Reato** giovanni.reato@comune.arcugnano.vi.it , Tel. 348/2486106	

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SALASPILS CONURBATION SEAPs IN FIGURES:

Conurbation Town/ Municipality	Population	BEI year:	Final energy consumption (MWh)	CO2 emissions: (tones)	CO2 emission reduction target by 2020	CO2 Proposed reduction (tones)	Budget EURO
SALASPILS	22,314	2010	113,813	23,363	20%	4,673	NA
IKŠĶILE	8,974	2009	24,431	5,763	20%	1,153	NA
ĶEGUMS	5,650	2007	23,564	5,366	20%	1,073	NA
LIELVĀRDE	10,282	2010	48,180	9,616	20%	1,923	NA
OGRE	35,531	2008	235,457	50,019	20%	10,004	NA
TOTAL:	**82,751**		**445,445**	**94,127**		**18,826**	**NA**

1. MUNICIPALITY OF SALASPILS

Conurbation:	**SALASPILS CONURBATION**	
Municipality:	**Municipality of Salaspils**	
Population:	**22,314 inhabitants**	
BEI year:	**2010**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 113,813 MWh / CO_2 emissions: 23,363 t**	
Details related to the public debate on SEAP	The Energy forum (public debate) took place in Salaspils on 28/11/2012. There were 26 participants who were active, expressed their opinions and also shared ideas. Main topics discussed - energy efficiency and building insulation, transportation, street lighting, Opinions expressed – municipality should take greater initiative, surrounding environment should be improved by short, but mainly long term measures with high investment costs (insulation of all buildings, purchase and use of electric vehicles)	
Approval of SEAP by local authority	The document by which the "Sustainable Energy Action Plan for Salaspils Municipality for 2013-2020" was approved: Meeting protocol of Municipality of Salaspils Nr.8, decision Nr.4. Date of formal approval: 24.04.2013	
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**	
Long-term vision of the local authority	SEAPs long-term vision is related to the municipalities' development vision which is "Our homes for a creative development in a blooming environment". Main priorities are – energy efficiency and security in buildings; creative solutions and educated society concerning energy use and production; clean, safe and well organized environment in the municipality of Salaspils; fuel switching to renewable for district heat production (one of main challenges to switch from the natural gas to the biomass).	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: - Increase of the energy efficiency in public buildings; - Implementation of the energy management system in the municipality; -The inventory of public lighting, development and implementation of specific measures concerning public lighting; Total costs depend on selected measures, known costs – 12,000 EUR. The estimated CO_2 reduction target in 2020 – 348.1 t CO_2.
	RESIDENTIAL	Key action and target: -Energy efficiency measures in apartment buildings, 50% of apartment buildings will be insulated till 2020 (all apartment buildings will be insulated till 2030); Total costs vary depending on selected measures.

		The estimated CO_2 reduction target in 2020 – 6,385 t CO_2.
	TERTIARY	Key actions and targets for the tertiary sector were not set.
	TRANSPORT	Key action and target: -Development and implementation of the Mobility Plan including the improvement of the cycling infrastructure and railroad; crossings, the use of biofuels in the municipalities' fleet; Total estimated costs depend on selected measures. The estimated CO_2 reduction target in 2020 – 1,991.2 t CO_2.
Other sectors or field of actions covered by SEAP	Local energy production	Key action: -The fuel switch from fossil fuels (e.g. natural gas) to biomass (e.g. wood chips) combined with the solar thermal energy. Total estimated costs depend on selected measures, known costs – 8,500 EUR. The estimated CO_2 reduction target in 2020 – 8,259 t CO_2;
	Land use planning	Key action: -Development of a project "Ideju Sauleskalns"– the development of the district heating system in the village Sauleskalns using biomass or other innovative solution (e.g. combined district heating system with the solar thermal energy). Estimated costs 9,300-18,500 EUR. The estimated CO_2 reduction target in 2020- 82.6 t CO_2;
	Public procurement	Key action: - Green Procurement use for purchasing white and grey appliances for municipality; Total costs – 214 EUR, the estimated CO_2 reduction target in 2020 – 29.4 t CO_2.
	Working with citizens and stakeholders	Key actions: -Foundation of the Information Office; -Communication activities for energy users; Total costs – 30,000 EUR, the estimated CO_2 reduction target in 2020 – 246 t CO_2;
	Administration and responsibilities	The key action: -Creation of the Working Group; Total costs – 142 EUR, the estimated CO_2 reduction target in 2020 – 234 t CO_2;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Working group will be specifically created for the implementation of the Action plan. The Working Group brings together already involved parties from different sectors (municipality, district heating, transport etc.). The Working group is a subject to the municipality of Salaspils and also municipalities' executive director. Head of the Working Group will be the head of the municipalities' Development department. The Working group ensures that the Action plan and measures are implemented, all sectors are being developed and the results are monitored. All results (feedback) are reported back to the municipality of Salaspils and municipalities' executive director.
	Involvement of stakeholders and citizens	Citizens will be involved through different activities – the Working Group informs local NGOs about the progress, NGOs and other citizens will participate in annual Energy Forums. Also local population surveys shall be carried out.
	Overall estimated budget	The overall estimated budget depends on selected measures in various sectors therefore specific overall estimated budget is unknown.
	Foreseen financing sources for the investments	Foreseen financing sources: - budget from the municipality; - energy efficiency and renewable energy rotation fund; - ESCO investments; - EU funds;

		- Green Investment (CCFI) funds; - Resources from businesses and - credit resources.
	Planned measures for monitoring and follow up	The Technical Department of the municipality of Salaspils is responsible for the overall monitoring system. However, for each sector monitoring shall be carried out by responsible stakeholder (e.g., municipality, municipal enterprise etc.). The evaluation of each activity has to be carried out by using the indicators listed in the Action Plan. If necessary new indicators have to be developed.
Actions selected to be implemented within the first year after finalization of the SEAP	Selected actions: 1. creation of the Working Group; 2. development of the standardized procurement for biomass fuels; 3. the implementation of the energy management in the municipality; 4. development of the Mobility Plant; 5. carrying out the inventory of the public lighting.	
Web address:	http://www.covenantofmayors.eu/actions/sustainable-energy-action-plans_en.html?city=salaspils&country_seap=&co2=&date_of_approval=&accepted=&x=42&y=11 http://www.salaspils.lv/ekonomika/ekonomikas-aktualitates/salaspils-novadam-ir-izstradats-ilgtspejibgas-energijas-ricibas-plans-2013-2020-gadam	
Contact details:	**Mareks Kalnins, Municipality of Salaspils, Head of Technical Department** +371 67981028; mareks.kalnins@salaspils.lv	

2. MUNICIPALITY OF IKŠĶILE

Conurbation:	**SALASPILS CONURBATION**	
Municipality:	**Municipality of Ikšķile**	
Population:	**8,974 inhabitants**	
BEI year:	**2009**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 24,431 MWh / CO2 emissions: 5,763 tons**	
Details related to the public debate on SEAP	The Energy forum (public debate) took place in Ikšķile on 28/11/2012. There were 12 participants who spoke about well known cases such as window replacement, building insulation. New opinions and ideas as well as necessary support mechanisms were expressed rarely. Main topics discussed – heat production, street lighting and energy efficiency concerning buildings. Opinions expressed – well known information which is available in the mass media, the municipality should take a greater role to reduce the energy consumption even in private houses.	
Approval of SEAP by local authority	The document by which the "Sustainable Energy Action Plan for Salaspils Municipality for 2013-2020" was approved: Meeting protocol of Municipality of Ikšķile Nr.10, decision Nr.22. Date of formal approval: 28.08.2013	
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**	
Long-term vision of the local authority	SEAPs long-term vision is related to the municipalities' development vision which emphasizes three aspects: -united community; -high living standards and the quality of the environment; -Ikšķile is an exclusive populated area near Riga. All these aspects are connected with energy and transport sectors. Indicated aspects are taken into account while developing SEAP.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Increase of the energy efficiency in public buildings; -Implementation of the energy management system in the municipality;

		-The inventory of public lighting, development and implementation of specific measures concerning public lighting; Total costs depend on selected measures, known costs – 12,000 EUR. Specific estimated CO_2 reduction target is not known due to lack of the data from public lighting, known reduction target till 2020 – 91 t CO_2.
	RESIDENTIAL	Key action and target: -Energy efficiency measures in apartment buildings, 50% of apartment buildings will be insulated till 2020 (all apartment buildings will be insulated till 2030). Total costs vary depending on selected measures. The estimated CO_2 reduction target in 2020 – 413 t CO_2.
	TERTIARY	Key actions and targets for the tertiary sector were not set.
	TRANSPORT	Key action and target: -Development and implementation of the Mobility Plan including the improvement of the cycling and public transport infrastructure, the use of biofuels in the municipalities' fleet etc. Total estimated costs depend on selected measures. The estimated CO_2 reduction target in 2020 – 854 t CO_2.
Other sectors or field of actions covered by SEAP	Local energy production	The key action: -The fuel switch from fossil fuels (e.g. natural gas) to biomass (e.g. wood chips) in boiler houses and municipalities' buildings. Total estimated costs depend on selected measures, known costs – 5,000 EUR. The estimated CO_2 reduction target in 2020 is at least 2,085 t CO_2.
	Public procurement	The key action: -Green Procurement use for purchasing white and grey appliances for municipality Total costs – 214 EUR; The estimated CO_2 reduction target in 2020 – 23 t CO_2.
	Working with citizens and stakeholders	Key actions: -Foundation of the Information Office -Communication activities for energy users Total costs – 100,000 EUR; The estimated CO_2 reduction target in 2020 – 42 t CO_2.
	Administration and responsibilities	The key action: -Creation of the Working Group Total costs – 142 EUR; The estimated CO_2 reduction target in 2020 – 60 t CO_2.
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Working group will be specifically created for the implementation of the Action plan. The Working Group brings together already involved parties from different sectors (municipality, district heating, transport etc.). The Working group is a subject to the municipality of Ikšķile and also municipalities' executive director. Head of the Working Group will be the municipalities' executive director or the head of the municipalities' Development department. The Working group ensures that the Action plan and measures are implemented, all sectors are being developed and the results are monitored. All results (feedback) are reported back to the municipality of Ikšķile and municipalities' executive director.
	Involvement of stakeholders and citizens	Citizens will be involved through different activities – the Working Group informs local NVOs about the progress, NVOs and other citizens will participate in annual Energy Forums. Also local population surveys shall be carried out.
	Overall estimated budget	The overall estimated budget depends on selected measures in various sectors therefore specific overall estimated budget is unknown.

	Foreseen financing sources for the investments	Foreseen financing sources: -Budget from the municipality; -Energy efficiency and renewable energy rotation fund; -ESCO investments; -EU funds; -Green Investment (CCFI) funds; -Resources from businesses and -Credit resources.
	Planned measures for monitoring and follow up	The Development Department of the municipality of Ikšķile is responsible for the overall monitoring system. However, for each sector monitoring shall be carried out by responsible stakeholder (e.g., municipality, municipal enterprise etc.). The evaluation of each activity has to be carried out by using the indicators listed in the Action Plan. New indicators have to be developed if necessary
Actions selected to be implemented within the first year after finalization of the SEAP	Selected actions: 1. Creation of the Working Group; 2. Carrying out the inventory of the public lighting; 3. The implementation of the energy management in the municipality; 4. Development of the standardized procurement for biomass fuels; 5. Development of the Mobility Plant.	
Web address:	http://www.covenantofmayors.eu/actions/sustainable-energy-action-plans_en.html?city=Ik%C5%A1%C4%B7ile&country_seap=&co2=&date_of_approval=&accepted=&x=27&y=19	
Contact details:	**Indra Leja, Municipality of Ikšķile, Head of the Development Department** +371 65055458; indra.leja@ikskile.lv	

3. MUNICIPALITY OF ĶEGUMS

Conurbation:	**SALASPILS CONURBATION**	
Municipality:	**Municipality of Ķegums**	
Population:	**5,650 inhabitants**	
BEI year:	**2007**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 23,564 MWh / CO_2 emissions: 5,366 tons**	
Details related to the public debate on SEAP	The Energy forum (public debate) took place in Ķegums on 13.12.2012. There were 23 participants who mostly pointed out current problems. Many participants concentrated only on one problem – district heating systems in Ķegums. Main topics discussed - district heating and heat production, energy efficiency in buildings and transportation. Opinions expressed – district heating system is old and not effective, road quality is poor, public transportation and cycling infrastructure is underdeveloped.	
Approval of SEAP by local authority	The document by which the "Sustainable Energy Action Plan for Kegums Municipality for 2013-2020" was approved: Meeting protocol of Municipality of Ķegums Nr.10, decision Nr.180. **Date of formal approval: 22.05.2013** http://www.kegums.lv/upload/dokumentacija/sedes2013/protokols_22_05_2013.pdf	
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**	
Long-term vision of the local authority	SEAPs long-term vision is related to the municipalities' development vision which is "Sustainable development for a better life". Main priorities are – developed business community and qualitative social infrastructure and utilities.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Increase of the energy efficiency in public buildings; -Implementation of the energy management system in the municipality; -The inventory of public lighting, development and implementation of specific measures concerning public lighting; Total costs depend on selected measures, known costs – 12,000 EUR;

		The estimated CO_2 reduction target in 2020 – 67 t CO_2.
	RESIDENTIAL	Key action and target: -Energy efficiency measures in apartment buildings, 50% of apartment buildings will be insulated till 2020 (all apartment buildings will be insulated till 2030). Total costs vary depending on selected measures. The estimated CO_2 reduction target in 2020 – 393 t CO_2.
	TERTIARY	Key actions and targets for the tertiary sector were not set.
	TRANSPORT	Key action and target: -Development and implementation of the Mobility Plan including the improvement of the cycling and public transport infrastructure and railroad crossings, the use of biofuels in the municipalities' fleet etc. Total estimated costs depend on selected measures. The estimated CO_2 reduction target in 2020 – 806 t CO_2.
Other sectors or field of actions covered by SEAP	Local energy production	Key actions: - Development of the district heating conception in Ķegums - Optimization and renovation of boiler houses Total estimated costs depend on selected measures, known costs – 4,900 EUR. The estimated CO_2 reduction target in 2020 is at least 332 t CO_2.
	Public procurement	The key action: -Green Procurement use for purchasing white and grey appliances for municipality; Total costs – 214 EUR; The estimated CO_2 reduction target in 2020 – 11 t CO_2.
	Working with citizens and stakeholders	Key actions: -Foundation of the Information Office -Communication activities for energy users Total costs – 20 thousand EUR; The estimated CO_2 reduction target in 2020 – 40 t CO_2.
	Administration and responsibilities	The key action: -Creation of the Working Group Total costs – 142 EUR; The estimated CO_2 reduction target in 2020 – 60 t CO_2.
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Working group will be specifically created for the implementation of the Action plan. The Working Group brings together already involved parties from different sectors (municipality, district heating, transport etc.). The Working group is a subject to the municipality of Ikšķile and also municipalities' executive director. Head of the Working Group will be the Mayor or the Vice Mayor (second is more likely). The Working group ensures that the Action plan and measures are implemented, all sectors are being developed and the results are monitored. All results (feedback) are reported back to the municipality of Ķegums.
	Involvement of stakeholders and citizens	Citizens will be involved through different activities – the Working Group informs local NVOs about the progress, NVOs and other citizens will participate in annual Energy Forums. Also local population surveys shall be carried out.
	Overall estimated budget	The overall estimated budget depends on selected measures in various sectors therefore specific overall estimated budget is unknown.
	Foreseen financing sources for the investments	Foreseen financing sources: -Budget from the municipality; -Energy efficiency and renewable energy rotation fund; -ESCO investments; -EU funds; -Green Investment (CCFI) funds; -Resources from businesses and

		-Credit resources.
	Planned measures for monitoring and follow up	The executive director of the municipality is responsible for the overall monitoring system. However, for each sector monitoring shall be carried out by responsible stakeholder (e.g., municipality, municipal enterprise etc.). The evaluation of each activity has to be carried out by using the indicators listed in the Action Plan. New indicators have to be developed if necessary.
Actions selected to be implemented within the first year after finalization of the SEAP	Selected actions: 1. Creation of the Working Group; 2. Carrying out the inventory of the public lighting; 3. The implementation of the energy management in the municipality; 4. Development of the standardized procurement for biomass fuels; 5. Development of the Mobility plan.	
Web address:	http://www.covenantofmayors.eu/actions/sustainable-energy-action-plans_en.html?city=%C4%B6egums&country_seap=&co2=&date_of_approval=&accepted=&x=22&y=5	
Contact details:	**Dace Soboļeva, Municipality of Ķegums, Project manager** +371 65055441; dace.soboleva@kegums.lv	

4. MUNICIPALITY OF LIELVĀRDE

Conurbation:	**SALASPILS CONURBATION**	
Municipality:	**Municipality of Lielvārde**	
Population:	**10,282 inhabitants**	
BEI year:	**2010**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 48,180 MWh / CO2 emissions: 9,616 tons**	
Details related to the public debate on SEAP	The Energy forum (public debate) took place in Lielvārde on 11/12/201. There were 21 participants who were active, actively expressed their opinions and also shared their own success stories. Main topics discussed - energy efficiency in buildings, behaviour change and supporting mechanisms. Opinions expressed – mostly common knowledge about energy efficiency in buildings was shared, fewer ideas were about necessary supporting mechanisms, financing and barrier overcoming.	
Approval of SEAP by local authority	SEAP for Lielvārde is still not approved by local authority.	
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**	
Long-term vision of the local authority	SEAPs long-term vision is related to the municipalities' development vision which is "Lielvārde – modern urban-rural environment that is attractive for living, working, leisure and tourism". Main priorities are – developed green economy, qualitative and sustainable living space and society which is oriented to positive change, educated, civilized etc.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Increase of the energy efficiency in public buildings; -Implementation of the energy management system in the municipality; -The inventory of public lighting, development and implementation of specific measures concerning public lighting; Total costs depend on selected measures, known costs–12,000 EUR. The estimated CO_2 reduction target in 2020 – 63 t CO_2.
	RESIDENTIAL	Key action and target: -Energy efficiency measures in apartment buildings, 50% of apartment buildings will be insulated till 2020 (all apartment buildings will be insulated till 2030).

		Total costs vary depending on selected measures. The estimated CO_2 reduction target in 2020 – 1,436 t CO_2.
	TERTIARY	Key actions and targets for the tertiary sector were not set.
	TRANSPORT	Key action and target: -Development and implementation of the Mobility Plan including the improvement of the public transport and cycling infrastructure and railroad crossings, the use of biofuels in the municipalities' fleet etc. Total estimated costs depend on selected measures. The estimated CO_2 reduction target in 2020 – 976 t CO_2.
Other sectors or field of actions covered by SEAP	Local energy production	Key actions: -Fuel switch projects from fossil fuels (e.g. natural gas) to biomass (e.g. wood chips) in boiler houses and municipalities' buildings. -Optimization and renovation of boiler houses Total estimated costs depend on selected measures, known costs – 4,900 thousand EUR. The estimated CO_2 reduction target in 2020 is at least 4,399 t CO_2.
	Land use planning	The key action: -Development of a theme "Lielvārdes josta"; -Development of the Mobility plan; Estimated costs 12,000 EUR. The estimated CO_2 reduction target in 2020- 84 t CO_2.
	Public procurement	The key action: - Green Procurement use for purchasing white and grey appliances for municipality; Total costs – 214 EUR; The estimated CO_2 reduction target in 2020 – 6 t CO_2.
	Working with citizens and stakeholders	The key action: -Communication activities for energy users; Total costs – 10,000 EUR; The estimated CO_2 reduction target in 2020 – 69 t CO_2.
	Administration and responsibilities	The key action: -Creation of the Working Group; Total costs – 142 EUR; The estimated CO_2 reduction target in 2020 – 104 t CO_2.
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Working group will be specifically created for the implementation of the Action plan. The Working Group brings together already involved parties from different sectors (municipality, district heating, transport etc.). The Working group is a subject to the municipality of Ikšķile and also municipalities' executive director. Head of the Working Group will be the Executive director or the Head of the Development Planning and Project Management Department. The Working group ensures that the Action plan and measures are implemented, all sectors are being developed and the results are monitored. All results (feedback) are reported back to the municipality of Lielvārde.
	Involvement of stakeholders and citizens	Citizens will be involved through different activities – the Working Group informs local NGOs about the progress, NGOs and other citizens will participate in annual Energy Forums. Also local population surveys shall be carried out.
	Overall estimated budget	The overall estimated budget depends on selected measures in various sectors therefore specific overall estimated budget is unknown.
	Foreseen financing sources for the investments	Foreseen financing sources: -Budget from the municipality; -Energy efficiency and renewable energy rotation fund; -ESCO investments; -EU funds;

		-Green Investment (CCFI) funds; -Resources from businesses and -Credit resources.
	Planned measures for monitoring and follow up	The Development Planning and Project Management Department is responsible for the overall monitoring system. However, for each sector monitoring shall be carried out by responsible stakeholder (e.g., municipality, municipal enterprise etc.). The evaluation of each activity has to be carried out by using the indicators listed in the Action Plan. New indicators have to be developed if necessary.
Actions selected to be implemented within the first year after finalization of the SEAP	Selected actions: 1. creation of the Working Group; 2. carrying out the inventory of the public lighting; 3. the implementation of the energy management in the municipality; 4. development of the standardized procurement for biomass fuels; 5. development of the Mobility Plant.	
Web address:	NA	
Contact details:	**Airita Brenča, Municipality of Lielvārde, Head of the Development Planning and Project Management Department** +371 65053748; airita.brenca@lielvarde.lv	

5. MUNICIPALITY OF OGRE

Conurbation:	**SALASPILS CONURBATION**	
Municipality:	**Municipality of Ogre**	
Population:	**35,531 inhabitants**	
BEI year:	**2008**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 235,457 MWh / CO2 emissions: 50,019 tons**	
Details related to the public debate of the Sustainable Energy Action Plan	The Energy forum (public debate) took place in Ogre on 04/12/201. There were 11 participants who were not active in the beginning but after the leave of mayor the attitude of participants changed and they more freely shared their opinions and ideas. Main topics discussed – transportation, energy efficiency in buildings and street lighting. Opinions expressed – cycling infrastructure should be improved and local residents should use more bicycle transportation; there should be more encouragement and motivation for residents to reduce the energy consumption.	
Approval of SEAP by local authority	**Date of formal approval: 19.12.2013**	
Overall CO_2 emission reduction target by 2020	**20% by 2020** **Absolute reduction**	
Long-term vision of the local authority	SEAPs long-term vision is related to the municipalities' development vision which is "The harmony between man and nature". Main priorities are – provide an environment friendly, high quality life; the development of the human potential in the municipality; encouragement of the economic growth and competitiveness of enterprises in the municipality.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Increase of the energy efficiency in public buildings -Implementation of the energy management system in the municipality -The inventory of public lighting, development and implementation of specific measures concerning public lighting Total costs depend on selected measures, known costs – 35,000 EUR. The estimated CO_2 reduction target in 2020 – 473 t CO_2.
	RESIDENTIAL	Key action and target: -Energy efficiency measures in apartment buildings, 50% of apartment buildings will be insulated till 2020 (all apartment buildings will be insulated till 2030).

		Total costs vary depending on selected measures. The estimated CO_2 reduction target in 2020 – 6,521 t CO_2.
	TERTIARY	Key actions and targets for the tertiary sector were not set.
	TRANSPORT	Key action and target: -Development and implementation of the Mobility Plan (improvements for the public transport and cycling infrastructure, biofuel use in the public fleet etc.) Total estimated costs depend on selected measures. The estimated CO_2 reduction target in 2020 – 5,241 t CO_2.
Other sectors or field of actions covered by SEAP	Local energy production	Key actions: -The fuel switch from fossil fuels (e.g. natural gas) to biomass (e.g. wood chips); -Reconstruction of boiler houses. Total estimated costs depend on selected measures, known costs – 4,900 EUR. The estimated CO_2 reduction target in 2020 – 18,283 t CO_2.
	Land use planning	The key action: -Development of theme for renovated buildings in the municipality -The development of the Mobility plan Estimated costs 28,000-55,000 EUR. The estimated CO_2 reduction target in 2020- 443 t CO_2.
	Public procurement	The key action: -Green Procurement use for purchasing white and grey appliances for municipality Total costs – 214 EUR; The estimated CO_2 reduction target in 2020 – 39 t CO_2.
	Working with citizens and stakeholders	Key actions: -Foundation of the Information Office; -Communication activities for energy users; Total costs – 103 thousand EUR; The estimated CO_2 reduction target in 2020 – 364 t CO_2.
	Administration and responsibilities	The key action: -Creation of the Working Group Total costs – 142 EUR; The estimated CO_2 reduction target in 2020 – 104 t CO_2.
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	The Working group will be specifically created for the implementation of the Action plan. The Working Group brings together already involved parties from different sectors (municipality, district heating, transport etc.). The Working group is a subject to the municipality of Ogre and also municipalities' executive director. The Working group ensures that the Action plan and measures are implemented, all sectors are being developed and the results are monitored. All results (feedback) are reported back to the municipality of Ogre and municipalities' Executive director.
	Involvement of stakeholders and citizens	Citizens will be involved through different activities – the Working Group informs local NVOs about the progress, NVOs and other citizens will participate in annual Energy Forums. Also local population surveys shall be carried out.
	Overall estimated budget	The overall estimated budget depends on selected measures in various sectors therefore specific overall estimated budget is unknown.
	Foreseen financing sources for the investments	Foreseen financing sources: -Budget from the municipality; -Energy efficiency and renewable energy rotation fund; -ESCO investments; -EU funds; -Green Investment (CCFI) funds; -Resources from businesses and

		-credit resources.
	Planned measures for monitoring and follow up	The municipality of Ogre is responsible for the overall monitoring system. However, for each sector monitoring shall be carried out by responsible stakeholder (e.g., municipalities' department, municipal enterprise etc.). The evaluation of each activity has to be carried out by using the indicators listed in the Action Plan. If necessary new indicators have to be developed.
Actions selected to be implemented within the first year after finalization of the SEAP	Selected actions: 1. creation of the Working Group; 2. development of the standardized procurement for biomass fuels; 3. the implementation of the energy management in the municipality; 4. development of the Mobility Plant; 5. carrying out the inventory of the public lighting.	
Web address:	http://www.covenantofmayors.eu/actions/sustainable-energy-action-plans_en.html?city=Ogre&country_seap=&co2=&date_of_approval=&accepted=&x=22&y=12	
Contact details:	**Ilze Staģīte, Municipality of Ogre, Project Manager** +371 65022170; ilze.stagite@ogresnovads.lv	

ROMANIA:
ALBA IULIA CONURBATION SEAPs IN FIGURES:

Conurbation Town/ Municipality	Population	BEI year:	Final energy consumption (MWh)	CO2 emissions: (tones)	CO2 emission reduction target by 2020	CO2 Proposed reduction (tones)	Budget EURO
BERGHIN	1,838	2008	10,286.58	4,249.35	22%	942.4	3,000,000
CIUGUD	2,664	2008	19,476.14	5,622.03	23%	1,301.5	7,100,000
IGHIU	6,500	2008	38,616.00	12,065.74	24%	2,941.5	7,200,000
SÎNTIMBRU	3,007	2008	21,065.26	5,971.83	23%	1,380.3	7,200,000
TOTAL:	**14,009**		**89,443.98**	**27,908.95**		**6,565.7**	**24,500,000**

1. VILLAGE OF BERGHIN:

Conurbation:	**ALBA IULIA CONURBATION**	
Conurbation Town:	**BERGHIN**	
Population:	**1,838 in 2008**	
BEI year:	**2008**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 10,286.58 MWh / CO_2 emissions: 4,249.35 tons**	
Details related to the public debate on SEAP	The event was attended by the Mayor, the Deputymayor, persons in charge of administrative and environment departments of the Village Hall, representatives of the inhabitants of the villages.	
Approval of SEAP by local authority	**Decision of Berghin Local Council, 23.05.2013** http://primariaberghin.ro/index.php?rewriteparam=home	
Overall CO_2 emission reduction target by 2020	**22 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	Joining the Covenant of Mayors, Berghin is planning to become a sustainable community energy. The priority areas of action concern residential buildings, but public buildings will be given as example of energy efficiency. Public transportation will be developed in partnership with AIDA (Alba Iulia Association for Intercommunity Development), and use of efficient nonpolluting vehicles will be encouraged by the local council by tax reduction scheme. Solar and wind power energy will be capitalized through public-private partnerships; energy management will be provided by establishment of an energy manager within the administrative structure of Berghin village Hall. Green public acquisitions will be promoted and information / public awareness campaigns about energy consumption and use efficient green energy will be organized.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Energy audits of public buildings and their energy performance certification; -Thermal insulation of the school buildings; -Implementation of intelligent electricity conservation systems; -"Casa Verde" national programme application for public buildings; -Water heating solar panels installation for public buildings (schools, kindergartens and sports center); - Modernization of interior lighting using energy efficient equipments for the school buildings and the village hall; Costs: 270,500 EUR; Estimated CO_2 reduction target per sector in 2020: 47.4 to.;
	RESIDENTIAL	Key actions and targets: - Thermal rehabilitation of houses promoted by measures of citizen awareness-raising; - Thermal rehabilitation of houses promoted through social mobilization campaigns plus local tax reduction for owners who do the investment from own founds;

		- Energy labeling promoted for residential buildings; - Accessing "Casa verde" national programe for households; - Upgrade the individual heating systems of houses from stoves to biomass heating systems; Costs: 827.000 EUR Estimated CO_2 reduction target per sector in 2020: 683 to.;
	TERTIARY	Key actions and targets: -Energy audits for tertiary buildings and their energy performance certification; -Supporting the introduction of minimum energy performance of buildings requests according to Law No. 372/2005 - Energy Performance of Buildings; -Thermal insulation of commercial properties, offices, head offices of economic agents; Costs: 10,600 EUR Estimated CO_2 reduction target per sector in 2020: 20 to.;
	TRANSPORT	Key actions and targets: - Implemementation of an intercomunal transportation system through the spreading area of AIDA (Intercommunity Development Association Alba Iulia); - Local tax reduction for low-carbon means of transport - Elaboration of an urban mobility project for bicycles Costs: 73,000 EUR; Estimated CO_2 reduction target per sector in 2020: 78 to.;
Other sectors or field of actions covered by SEAP	LOCAL ELECTRICITY PRODUCTION	Key actions and targets: - Implementation of a 1MW photovoltaic park by supporting a public-private partnership (municipality share ~8%); - Implementaton of electrical and thermal (co-generation) production projects for public buildings; Costs: 200,000 EUR; Estimated CO_2 reduction target per sector in 2020: 66 to.;
	LAND USE PLANNING	Key action: - Setting up the new General Urban Plan with a distinct approach to energy sustainbility; - Increasing territorial attractiveness, mobillty flow and functional of the public domain; - Issuing construction authorisations only to buldings having calculated their energy performance (according to Law no. 372/2005); - Issuing energy performance certificates to buildings subject to a sale/purchase or a lease agreement (according to Law no. 372/2005); - Creating the local energy management position within the administrative structure of the Municipality of Berghin Costs and estimated CO_2 reduction target per sector in 2020: NA
	PUBLIC LIGHTING	Key actions and targets: - Energy audit of the public lighting system; - Refurbishment and modernization of public lighting; - Public lighting concession to a private operator to optimze consumption; - Installation of energy independent lighting systems in residential areas (by using photovoltaic panels); Costs: 194,000 EUR; Estimated CO_2 reduction target per sector in 2020: 48 to.;
Organizational and financial aspects:	Coordination and organizational structures created/assigned	In the context of Conurbant Project, Berghin became member of the European Commission's Convent of Mayors, receiving support in the elaboration of its SEAP. Berghin Municipality also became member of ALEA (Alba Local Energy Agency) Association, benefiting

	Staff capacity allocated	from its technical support in developing the emission inventory as well as the SEAP. Furth more, a management group has been established by a decision of Mayor in order to coordinate the development and implementation of the SEAP
	Involvement of stakeholders and citizens	Working groups were created with representatives of institutions, organizations, stakeholders in the community and other persons involved in the project.
	Overall estimated budget	3,000,000 EUR/13,500,000 RON
	Foreseen financing sources for the investments within your action plan	Public -Local Authority's own resources 7% -National Funds & Programmes 15% -EU Funds & Programmes 22% Private 56%
	Planned measures for monitoring and follow up	The management group will assume the responsibility of SEAP implementation coordination; after the approval of the SEAP, every two years, a report on the implementation stage will be written and sent to CoMo.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Thermal rehabilitation of the school buildings 2. Thermal rehabilitation of houses promoted by measures of citizen awareness-raising 3. Upgrade the individual heating systems of houses from stoves to biomass heating systems 4. Refurbishment and modernization of public lighting 5. Implementation of an intercommunal transportation system through the spreading area of AIDA (Intercommunity Development Association Alba Iulia)	
Web address:	**http://primariaberghin.ro**	
Contact details:	**Alexandra Maria HABEAN, Municipality of Berghin, Surveying,** Telephone number: 004 0744324859 and e-mail: h_alecsa@yahoo.comm	

2. VILLAGE OF CIUGUD:

Conurbation:	**ALBA IULIA CONURBATION**
Conurbation Town:	**CIUGUD**
Population:	**2,664**
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 19,476.14 MWh / CO_2 emissions: 5,622.03 to.;**
Details related to the public debate on SEAP	The event was attended by the Mayor, the Vice Mayor, representatives of the Ciugud Local Council, persons in charge of administrative and environment departments of the Village Hall, representatives of the Ciugud Secondary School, representatives of the inhabitants of the villages and also by economic agents.
Approval of SEAP by local authority	**Decision of Ciugud Local Council, 17.05.2013** http://www.primariaciugud.ro/index.php?page=home
Overall CO_2 emission reduction target by 2020	**23 % by 2020** **Absolute reduction**
Long-term vision of the local authority	Ciugud is planning to become a community where energy will be efficiently used while a part of the final energy consumption will be provided using local potential of renewable energy resources. The priority areas of action concern residential buildings, but public buildings will also be given as an example of energy efficiency. Public transportation will be developed through a partnership in the AIDA (the Alba Iulia Association for Intercommunity Development) context and the use of efficient nonpolluting vehicles will be encouraged by the local council tax reduction scheme. Solar and wind power energy will be capitalized through public-private partnerships; energy management will be provided by the establishment of an energy manager inside the administrative structure of the Ciugud Village Hall. Green public acquisitions will be promoted; in addition, information and mobilization campaigns will be systematically launched in order to inform the citizens about the rational use of energy and energy efficiency.

SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Energy audits of public buildings and their energy performance certification -Thermal insulation of the school buildings -Implementation of intelligent electricity conservation systems -"Casa Verde" national programme application for public buildings -Water heating solar panels installation for public buildings (schools, kindergartens and sports center) Costs: 329,500 EUR; Estimated CO_2 reduction target per sector in 2020: 27,5 to.;
	RESIDENTIAL	Key actions and targets: -Thermal insulation of residences supported through social mobilization campaigns plus local tax reduction for owners who do the insulation from their personal budget; -Supporting energy performance certification of residential buildings; -"Casa Verde" national programme application for residential buildings; -Upgrade the heating system from stoves to biomass central heating systems; Costs: 13,505,000 EUR; Estimated CO_2 reduction target per sector in 2020: 877 to;
	TERTIARY	Key actions and targets: -Energy audits for tertiary buildings and their energy performance certification; -Supporting the introduction of minimum energy performance of buildings requests according to Law No. 372/2005 - Energy Performance of Buildings; -Thermal insulation of commercial properties, offices, head offices of economic agents; Costs: 162,000 EUR; Estimated CO_2 reduction target per sector in 2020: 20 to.;
	TRANSPORT	Key actions and targets: -Acquisition of new low-carbon means of transport; -Implementation of an intercommunal transportation system through the spreading area of AIDA; - Local tax reduction for low-carbon means of transport -Implementation of an urban bicycle mobility project; Costs: 155,000 EUR; Estimated CO_2 reduction target per sector in 2020: 180 to.;
Other sectors or field of actions covered by SEAP	LOCAL ELECTRICITY PRODUCTION	Key actions and targets: - Installation of a 3MW photovoltaic park by supporting a private-public partnership/concession (CL Ciugud share - 5%); -Implementation of electrical and thermal (co-generation) production projects for public buildings; -Growing and harvesting willow for biomass energy; Costs: 390,000 EUR; Estimated CO_2 reduction target per sector in 2020: 133 to.;
	LAND USE PLANNING	Key actions and targets: -Setting up the new General Urban Plan with a distinct approach to energy sustainability; -Increasing territorial attractiveness, mobility flow and functionality of the public domain; -Releasing construction authorization only to buildings having calculated their energy performance (according to Law No. 372/2005); -Releasing energy performance certificates to buildings subjected to a sale/purchase or a lease agreement (according to Law No.

		372/2005); -Creating the 'local energy manager' position in the organizational structure of the Municipality of Ciugud Costs and estimated CO_2 reduction target per sector in 2020: NA
	PUBLIC LIGHTING	Key actions and targets: - Energy audit of the public lighting system; - Refurbishment and modernization of public lighting; - Public lighting concession to a private operator to optimze consumption; - Installation of energy independent lighting systems in residential areas (by using photovoltaic panels); Costs: 283,000 EUR; Estimated CO_2 reduction target per sector in 2020: 64 to.;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	In the context of the CONURBANT project, Ciugud Municipality became member of the European Commission's Covenant of Mayors, thus being supported in the realization/implementation of SEAP. Ciugud Municipality also became member of ALEA, benefitting from its technical support in developing the emission inventory as well as the SEAP. Furthermore, a ”management group” has been established by mayoral decision in order to coordinate the development and implementation of the SEAP. 1 person (the energy manager) was allocated.
	Involvement of stakeholders and citizens	Setting of working groups by involving representatives within institutions, organizations, stakeholders and other persons interested in the project.
	Overall estimated budget	7,100,000 EUR / 31,950,000 RON;
	Foreseen financing sources for the investments within your SEAP	Public -Local Authority’s own resources 6% -National Funds & Programmes 11% -EU Funds & Programmes 19% Private 64%
	Planned measures for monitoring and follow up	The ‘management group’ will send, once every two years after the approval of the SEAP, a report on the situation of the implementation of the measures contained in the Action Plan.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Thermal insulation of residences supported through social mobilization campaigns plus local tax reduction for owners who do the insulation from their personal budget 2. “Casa Verde” national programme application for residential buildings 3. Upgrade the heating system from stoves to biomass central heating systems 4. Implementation of an intercommunal transportation system through the spreading area of AIDA (Intercommunity Development Association Alba Iulia) 5. Refurbishment of public lighting	
Web address:	http://www.eumayors.eu/about/signatories_en.html?city_id=4717&seap	
Contact details:	**Marius ARSU, Town of Ciugud**, Public Administration Expert, Telephone number: 004 0763132513 and e-mail: arsu_marius@yahoo.com	

3. VILLAGE OF IGHIU:

Conurbation:	**ALBA IULIA CONURBATION**
Conurbation Town:	**IGHIU**
Population:	**6,500**
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 38,616 MWh / CO_2 emissions: 12,065.74 to.;**
Details related to the public debate on SEAP:	The event was attended by the Mayor, the Vice Mayor, persons in charge of administrative and environment departments of the Village Hall, representatives of the Ighiu Local Council, representatives of the inhabitants of the villages and also by

	economic agents.	
Approval of SEAP by local authority	**Decision of Ighiu Local Council, 28.06.2013** http://www.comunaighiu.ro/Ighiu_hot%C4%83r%C3%A2ri-ale-consiliului-local-196.html	
Overall CO_2 emission reduction target by 2020	**24 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	Ighiu is planning to become an energy-sustainable community where energy is used efficiently and a part of the energy consumed is from renewable sources. The priority areas of action concern residential buildings, but public buildings will also be given as an example of energy efficiency; public transportation will be developed through a partnership in the AIDA (the Alba Iulia Association for Intercommunity Development) context and the use of efficient nonpolluting vehicles will be encouraged. Solar, biomass and MHC energy will be capitalized through public-private partnerships; energy management will be promoted by the creation of an energy manager position inside the administrative structure of Ighiu Village Hall. Green public acquisitions will be promoted; in addition, information and mobilization campaigns will be systematically launched in order to inform the citizens about the rational use of energy and the use of RES.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Energy audits of public buildings and their energy performance certification; -Thermal insulation of the school buildings; -Implementation of intelligent electricity conservation systems; -"Casa Verde" national programme application for public buildings; -Water heating solar panels installation for public buildings (schools, kindergartens and sports center); -Modernization of interior lighting systems using energy efficient equipment especially in schools and the village halls; Costs: 516,000 EUR; Estimated CO_2 reduction target per sector in 2020: 66 to CO_2;
	RESIDENTIAL	Key actions and targets: -Thermal insulation of residences supported through social mobilization campaigns plus local tax reduction for owners who do the insulation from their personal budget; -Promotion of energy performance certification of residential buildings; -"Casa Verde" national programme application for residential buildings; -Upgrade of the individual building heating systems from stoves to biomass heating systems; Costs: 2,350,000 EUR; Estimated CO_2 reduction target per sector in 2020: 2,207 to.;
	TERTIARY	Key actions and targets: -Energy audits for tertiary buildings and their energy performance certification; -Supporting the introduction of minimum energy performance of buildings requests according to Law No. 372/2005 - Energy Performance of Buildings; -Thermal insulation of commercial properties, offices, head offices of economic agents; Costs: 214,000 EUR; Estimated CO_2 reduction target per sector in 2020: 36 to.;
	TRANSPORT	Key actions and targets: -Acquisition of new low-carbon means of transport; -Implementation of an intercommunal transportation system through the spreading area of AIDA; -Local tax reduction for low-carbon means of transport; -Elaboration of an urban mobility plan for bikers; Costs: 144,000 EUR;

		Estimated CO_2 reduction target per sector in 2020: 182.5 to.;
Other sectors or field of actions covered by SEAP	LOCAL ELECTRICITY PRODUCTION	Key actions and targets: -Implementation of an MHC 0.3 MW by private-public partnership (municipality share ~ 10%); -Installation of a 2MW photovoltaic park by supporting a private-public partnership/concession (municipality share ~ 10%); -Implementation of electrical and thermal (co-generation) production projects using biomass to provide energy to important public buildings and industrial applications 800 kw (10% Ighiu share); Costs: 360,000 EUR; Estimated CO_2 reduction target per sector in 2020: 353 to.;
	LAND USE PLANNING	Key actions: -Setting up the new General Urban Plan with a distinct approach to energy sustainability; -Issuing construction authorization only to buildings having calculated their energy performance (according to Law No. 372/2005); -Issuing energy performance certificates to buildings subjected to a sale/purchase or a lease agreement (according to Law No. 372/2005); -Creating the 'local energy manager' position in the organizational structure of the Municipality of Ighiu; Costs and estimated CO_2 reduction target per sector in 2020: NA;
	PUBLIC LIGHTING	Key actions and targets: -Energy audit of the public lighting system; -Refurbishment and modernization of public lighting; -Public lighting concession to a private operator to optimze consumption; -Installation of energy independent lighting systems in residential areas (by using photovoltaic panels); Costs: 400,500 EUR; Estimated CO_2 reduction target per sector in 2020: 97 to.;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Ighiu municipality signed the Covenant of Mayors and it will elaborate the SEAP in the context of the conurbation project called CONURBANT developed by Alba Iulia municipality. Ighiu is member of ALEA (Alba Local Energy Agency) benefiting from technical support in all aspects related to the Covenant of Mayors. By order of Mayor a ”management goup” was established to coordinate the development and implementation of ”SEAP”. One person in charge with the activities related to the Covenant of Mayors;
	Involvement of stakeholders and citizens	Working groups were set up whose members are representatives of institutions, organizations, stakeholders and other persons interested in the project.
	Overall estimated budget	7,200,000 EUR / 32,400,000 RON;
	Foreseen financing sources for the investments	Public -Local Authority’s own resources 8% -National Funds & Programmes 22% -EU Funds & Programmes 26% Private 44%
	Planned measures for monitoring and follow up	A monitoring programme of the Ighiu SEAP implementation will be developed, and every two year the emission inventory and the implementation report will be sent to the Covenant of Mayors Office.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Thermal rehabilitation of residences supported through social mobilization campaigns plus local tax reduction for owners who do the insulation works using own finances. 2. Upgrade of the individual building heating systems from stoves to biomass heating systems	

	3. Implementation of an intercommunal transportation system through the spreading area of AIDA (Intercommunity Development Association Alba Iulia) 4. Refurbishment of public lighting
Web address:	http://www.comunaighiu.ro http://www.eumayors.eu/about/signatories_en.html?city_id=4769&seap
Contact details:	**Ionela Maria BOLEA, Municipality of Ighiu, Legal Adviser** Telephone number: 004 0730909602 and e-mail: boleaionela@yahoo.com

4. VILLAGE OF SÎNTIMBRU:

Conurbation:	**ALBA IULIA CONURBATION**	
Conurbation Town:	**SÎNTIMBRU**	
Population:	**3,007**	
BEI year:	**2008**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 21,065.26 MWh;** **CO_2 emissions: 5,971.83 to.;**	
Details related to the public debate on SEAP	The event was attended by the Mayor, the Vice Mayor, persons in charge of administrative and environment departments of the Village Hall, representatives of the Santimbru Secondary School, representatives of the Santimbru Primary School, representatives of the inhabitants of the villages and also by economic agents.	
Approval of SEAP by local authority	**Decision of Sintimbru Local Council, 28.05.2013** **http://www.comunasintimbru.ro**	
Overall CO_2 emission reduction target by 2020	**23 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	Sîntimbru is planning to become an energy-sustainable community by signing the Covenant of Mayors. The priority areas of action concern residential buildings, but public buildings will also be given as an example of energy efficiency; public transportation will be developed through a partnership in the AIDA (the Alba Iulia Association for Intercommunity Development) context and the use of efficient nonpolluting vehicles will be encouraged by the local council tax reduction scheme. When transit transportation will be taken over by the nearby highway which is being built, pollution will also be reduced noticeably. Solar and biomass energy will be capitalized through public-private partnerships; energy management will be promoted by the creation of an energy manager position inside the administrative structure of Sîntimbru Village Hall. Green public acquisitions will be promoted; in addition, information and mobilization campaigns will be systematically launched in order to inform the citizens about the rational use of energy and the use of RES.	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Energy audits of public buildings and their energy performance certification; -Thermal insulation of the school buildings; -Implementation of intelligent electricity conservation systems; -Implementation of intelligent electricity conservation systems, -Water heating solar panels installation for public buildings (schools, kindergartens and sports center); - "Casa Verde" national programme application for public buildings; Costs: 396,100 EUR; Estimated CO_2 reduction target per sector in 2020: 32 to.;
	RESIDENTIAL	Key actions and targets: -Thermal rehabilitation of residences supported through social mobilization campaigns.; -Thermal insulation of residences supported through social mobilization campaigns plus local tax reduction for owners who do the insulation from their personal budget; -Promotion of energy performance certification of residential

		buildings; -“Casa Verde” national programme application for residential buildings; -Upgrade of the individual building heating systems from stoves to biomass heating systems; Costs: 1,351,000 EUR; Estimated CO_2 reduction target per sector in 2020: 771 to.;
	TERTIARY	Key actions and targets: -Energy audits for tertiary buildings and their energy performance certification; -Supporting the introduction of minimum energy performance of buildings requests according to Law No. 372/2005 - Energy Performance of Buildings ; -Thermal insulation of commercial properties, offices, head offices of economic agents; Costs: 108,000 EUR; Estimated CO_2 reduction target per sector in 2020: 15 to.;
	TRANSPORT	Key actions and targets: -Implementation of an intercommunal transportation system through the spreading area of AIDA (Intercommunity Development Association Alba Iulia); -Local tax reduction for low-carbon means of transport; -Building of Sebeș - Turda motorway; -Safety traffic infrastructure modernization on DN1 in linear villages and danger zones; -Elaboration of an urban mobility plan for bikers; Costs: 254,500 EUR; Estimated CO_2 reduction target per sector in 2020: 344.7 to.;
Other sectors or field of actions covered by SEAP	LOCAL ELECTRICITY PRODUCTION	Key actions and targets: -Installation of a 2MW photovoltaic park by supporting a private-public partnership/concession (municipality share ~ 7%); -Implementing a project to provide electrical energy from renewable sources for municipal buildings and / or public lighting; -Implementation of electrical and thermal (co-generation) production projects using biomass to provide energy to the blocks of flats district ”Sîntimbru Fabrica”; Costs:420,000 EUR; Estimated CO_2 reduction target per sector in 2020: 184 to.;
	LAND USE PLANNING	Key actions and targets: -Setting up the new General Urban Plan with a distinct approach to energy sustainability; -Increasing territorial attractiveness, mobility flow and functionality of the public domain; -Issuing construction authorization only to buildings having calculated their energy performance (according to Law No. 372/2005); -Issuing energy performance certificates to buildings subjected to a sale/purchase or a lease agreement (according to Law No. 372/2005); -Creating the 'local energy manager' position in the organizational structure of the Municipality of Sîntimbru; Costs and estimated CO_2 reduction target per sector in 2020: NA
	PUBLIC LIGHTING	Key actions and targets: -Energy audit of the public lighting system; -Refurbishment and modernization of public lighting; -Public lighting concession to a private operator to optimze consumption; - Installation of energy independent lighting systems in residential

		areas (by using photovoltaic panels) Costs: 259,600 EUR; Estimated CO_2 reduction target per sector in 2020: 33.6 to.;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	In the context of the CONURBANT project, Sintimbru village hall is being supported in the realization/implementation of the SEAP; also, it became member of ALEA (Alba Local Energy Agency), thus , they will benefit from technical support in all aspects related to the Covenant of Mayors. 1 person in charge with the activities related to the Covenant of Mayors was appointed by Mayor' decision.
	Involvement of stakeholders and citizens	There were set up working groups with representatives of institutions, organisations, stakeholders and other persons interested in the project. Intelligent Energy Days will be organized annually at Alba Iulia conurbantion level.
	Overall estimated budget	7,200,000 EUR / 32,400,000 RON
	Foreseen financing sources for the investments	Public -Local Authority's own resources 8% -National Funds & Programmes 22% -EU Funds & Programmes 26% Private 44%
	Planned measures for monitoring and follow up	A monitoring programme of the Sîntimbru SEAP implementation will be developed, and every two year the emission inventory and the implementation report will be sent to the Covenant of Mayors Office.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Thermal rehabilitation of residences supported through social mobilization campaigns plus local tax reduction for owners who do the insulation works using own finances; 2. Upgrade of the individual building heating systems from stoves to biomass heating systems; 3. Implementation of an intercommunal transportation system through the spreading area of AIDA (Intercommunity Development Association Alba Iulia); 4. Refurbishment of public lighting;	
Web address:	www.comunasintimbru.ro http://www.conventiaprimarilor.eu/about/signatories_ro.html?city_id=4718&seap	
Contact details:	**Ioan - Iancu POPA, Municipality of Sintimbru, Mayor** Telephone number: 004 0760237400 and e-mail: popasintimbru@yahoo.com	

ARAD CONURBATION SEAPs IN FIGURES:

Conurbation Town/ Municipality	Population	BEI year:	Final energy consumption (MWh)	CO2 emissions: (tones)	CO2 emission reduction target by 2020	CO2 Proposed reduction (tones)	Budget EURO
ARAD	147,992	2008	3,606,642	1,205,386	23%	394,753	321,565,871
LIPOVA	11,200	2008	172,296	21,250	21%	4,305	898,350
NĂDLAC	7,185	2008	153,812	23,766	20,90%	4,975	1,713,285
PECICA	13,024	2008	262,607	50,816	20,60%	10,462	19,292,120
SÂNTANA	13,000	2008	118,879	15,470	20,16%	3,119	526,200
TOTAL:	**192,401**		**4,314,236**	**1,316,688**		**417,615**	**343,995,826**

1. MUNICIPALITY OF ARAD:

Conurbation:	**ARAD CONURBATION**	
Municipality:	**MUNICIPALITY OF ARAD**	
Population:	**147,992**	
BEI year:	**2008**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 421,857 MWh / CO_2 emissions: 39,475 to.**	
Details related to the public debate on SEAP	The public debate took place on July 24th 2012. A number of 36 people participated in it. Of these, 8 people took the floor. During the debate, the members of the SEAP development and implementation team of the city of Arad presented the measures to be taken to reduce CO_2 emissions by at least 2% by 2020. The participants adopted all the 50 measures proposed within the SEAP. In addition, following the discussions and the proposals put forward by the specialists, the NGO representatives and the citizens, the municipality adopted three additional measures concerning the residential, institutional and urban planning sectors	
Approval of SEAP by local authority	**The Sustainable Energy Action Plan was approved by the Local Council of the City of Arad on August 14th 2012, by Decision no. 170 of August 14th 2012.** http://www.primariaarad.ro/info.php?page=/temp/strategia0820/main.html&newlang=ron&theme=th1-ron	
Overall CO_2 emission reduction target by 2020	**23 % by 2020** **Per capita reduction**	
Long-term vision of the local authority	Energy safety and efficiency for the sustainable development of Arad: - consumers' access to energy sources for affordable and stable prices - sustainable development of production, transport and energy consumption - safety of energy supply and reduction of greenhouse gas emissions	
SEAP actions in key sectors:	MUNICIPAL	Key actions: - Distribution of a material about best practices regarding the environment and energy saving in public institutions; - Organising workshops on energy efficiency;
	RESIDENTIAL	Key actions and targets: - Thermal rehabilitation of 58 blocks of flats in the city of Arad (1,814 to. CO_2, 5,666 MWh/year) - Tax exemption for thermal rheabilitasion of buildings by owners ;
	TERTIARY	Key actions and targets: - Organising a campaign to increase public awareness of climate changes and ways to reduce the environmental impact; Cost: 15,000 EURO Emissions reduction estimated at 8,861.5 to CO_2 and energy savings estimated at 20,639 MWh/year - Organising an annual Energy Day

		Cost: 24,000 Euro -Consolidating the administrative capacity through the implementation and certification of the Environmental Management System ISO 14001 in the City of Arad; Cost: 22,700 EURO -Including energy efficiency among the technical criteria of public procurement;
	TRANSPORT	Key actions and targets: - Organising the "Car-Free Week" campaign to promote bicycling riding and public transport; Cost: 15,000 EURO Emissions reduction estimated at 7,25 to CO2 and energy savings estimated at 2,5 MWh/year - 130 km of bicycle routes 130 km in the city of Arad Cost: 4,013,125 EURO - Procurement of energy-saving trams; Cost: 8,700,000 EURO - annual public transport fare reductions for certain social categories Cost: 340,000 EURO - facilitating public transport by introducing an E-ticketing system Cost: 180,000 EURO
Other sectors or field of actions covered by SEAP	PUBLIC LIGHTING	Key actions and targets: -Modernising the public lighting network and introducing a monitoring system; Cost: 67,000,000 EURO Emissions reduction estimated at 1,015.69 to CO_2 and energy savings estimated at 1,907.40 MWh/year; - Extending the public lighting system through the implementation of solar panel energy supply solutions; Cost: 12,500,000 EURO Emissions reduction estimated at 532.5 to CO_2 and energy savings estimated at 1,000 MWh/an
	LOCAL PRODUCTION OF ELECTRICITY	Key actions and targets: - Closing the cinders and ash deposit of Lignite CET Arad and building a solar panel park on the site Cost: 40,000,000 Euro, energy savings estimated at 33,300 MWh/year - Building a solar panel plant of 3,5 MWhe on an area of 13 ha. Cost: 16,990,000 EURO Energy savings estimated at 5,000 MWh/year
	Local urban heating/cooling CHP	Key actions and targets: - Finalising the construction of boiler no 2 and retrofitting the incineration plant to use only natural gas - Increasing the cogeneration efficiency by introducing a gas turbine, a recuperator and heat accumulation Cost: 50,000,000 EURO Emissions reduction estimated at 295,528 to CO_2 and energy savings estimated at 281,700 MWh/year
	Territorial planning	Key actions and targets: - Maintenance, landscaping, and planting of trees and flowers on new green areas; - Planting trees and shrubs every year until 2020, about 50 trees and 100 shrubs; Cost: 1,222,222 EURO - Recreational area development in "Pădurice"; Cost: 1,877,790 EURO - Green area development and rehabilitation in Parc "Eminescu";

		Cost: 511.100 EORO
	Water	Key actions and targets: - Water systems rehabilitation, total length 52,934 meters - Sewage system rehabilitation, total length 17,420 meters Cost: 40,000,000 EURO
	Wastes	- Building a biodegradable waste and vegetal waste compost station Cost: 4,605.902 EURO - Distributing a guide for selective waste sorting Cost: 360,000 EURO - Distributing 30,000 garbage bins to house owners in the city of Arad Cost: 88,260 EURO - Establishing street waste collection points Cost: 88,260 EURO - Distributing 100,000 printed bags for selective sorting
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	According to Decision no. 4/30.01.2012, the SEAP development and implementation team was created In the city of Arad. Besides specialists from the City of Arad, the team includes representatives of economic operators providing local public services E-ON GAZ, ENEL, ELBA, ASA, POLARIS, Environmental Protection Agency, representatives of education institutions and universities, Chamber of Commerce and Industry and NGOs.
	Involvement of stakeholders and citizens	All members of Arad's working team contributed with ideas of energy efficiency projects. They all had the possibility to suggest project ideas/measures, from traditional to innovative measures to be included in the action plan. A series of meetings were organised with both the domestic and the external stakeholders in charge of various sectors of activity. The meetings had several well-defined purposes: -Training sessions to understand the objective of the project -Training sessions to understand and accept the working ways and the methods applied for SEAP development -Working sessions for the collection of relevant data necessary for the emissions inventory - Working sessions for establishing specific objectives, targets and measures/actions required to reach the targets -Sessions for the analysis and assessment of the actions of identifying the potential of emission reduction -Sessions for reporting data and the project status The citizens' direct involvement was considered appropriate during the SEAP open debate. SEAP was thus completed with various measures/actions that the citizens can take as added value. After SEAP approval, a major objective is the regular communication with the stakeholders about the application of the SEAP measures in the implementation and monitoring period.
	Overall estimated budget	The proposed 50 measures, which are well-defined, will lead to a reduction of the CO2 with 394,753 to CO_2 by 2020, against the reference year (2008). To reach the SEAP targets, responsibilities were assigned to almost all departments in the City of Arad and other local factors like CET Arad, Polaris, CTP. The citizens were directly involved in programmes of increasing public awareness. **The estimated costs of the 50 actions reach 321,566,000 EURO – 1,447,046,000 RON (1EURO=4,5 RON).**
	Foreseen financing sources for the	The financial sources for the 50 measures included in SEAP are: own sources, non-reimbursable sources, credits and public/private partnerships.

	investments	
	Planned measures for monitoring and follow up	During the first 2 years of implementation, after SEAP approval, the implementation of the measures will be evaluated. Special attention shall be paid to short-term measures (2 years), as well as long medium-term measures (5 years) and long-term measures (8 years) with a view of assessing the degree of SEAP implementation. Reports to be submitted locally and to the superior levels of the Covenant of Mayors. In the first two years of implementation, SEAP evaluation may require revision of certain actions. New energy efficiency measures may be taken to compete in reaching the targets established initially.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Provide annual discounts for local public transport user belonging to certain social categories; 2. Develop recreation area ”Padurice” located in the city centre, next to a lake; 3. Include energy efficiency as a technical criterion for public procurement; 4. Distribute 100.000 inscribed sacks for selective waste collection; 5. Tax exemption for the building owners who make thermal insulation works on their own account; 6. Organise annually the European Mobility Week, including a car free day, a campaign to promote the use of bicycles and public transportation; 7. Continue the rehabilitation of public transport network; 8. Buy new tramcars, modernize the main depot infrastructure and introduce an e-ticketing system for the local transport; 9. Building 130 km of new bicycle lanes;	
Web address:	http://www.primariaarad.ro/info.php?page=/temp/strategia0820/main.html&newlang=ron&theme=th1-ron http://www.eumayors.eu/about/signatories_en.html?city_id=3109&seap	
Contact details:	**PRIMĂRIA MUNICIPIULUI ARAD,** Revoluției Boulevard no. 75, Arad Municipality, Sarad County , postal code 310130. **Tel: +40-257-281850, Fax +40-257-284744, +40-257-253842**, www.primariaarad.ro	

2. TOWN OF LIPOVA:

Conurbation:	**ARAD CONURBATION**
Conurbation Town:	**TOWN OF LIPOVA**
Population:	**11,200 inhabitants**
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 172,296 MWh / CO_2 emissions: 21,250 to CO_2;**
Details related to the public debate on SEAP	The public debate took place on April 8th 2013. The participants adopted all the 25 measures proposed within the SEAP.
Approval of SEAP by local authority	The Sustainable Energy Action Plan was approved by the Local Council of the town of Lipova on April 8th 2013 , by Decision no 63 of April 8th 2013.
Overall CO_2 emission reduction target by 2020	**21,07 % by 2020 (4,305 to. CO2)** **Per capita reduction**
Long-term vision of the local authority	Energy safety and efficiency for the sustainable development of Lipova: -Increased energy efficiency -Reduced energy costs -Higher living standard in a cleaner environment
Objectives, targets:	The main objectives of the Sustainable Energy Action Plan are the following: 1. To produce energy from renewable sources; 2. To reduce energy consumption in public institutions; 3. To reduce energy consumption in the public lighting system; 4. To increase stakeholders’ and public’s awareness; 5. To encourage green procurement; 6. To encourage waste recycling;

	7. To adopt energy efficiency criteria in planning urban development; 8. To make green areas and to plant trees;	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Distribution of a material about best practices regarding the environment and energy saving in public institutions; -Organising workshops on energy efficiency; Energy savings estimated at 292.46 MWh by 2020 / 22.23 to. CO_2 emissions;
	RESIDENTIAL	Key actions and targets: -Thermal rehabilitation of 4% of buildings; -Installing solar panels on the Lipova town hall building; -Installing solar panels on schools, nursery schools and the town hospital; Energy savings estimated at 13,020 MWh by 2020/32.14 to. CO_2 emissions;
	TERTIARY	Key actions: -Organising a campaign to increase public awareness of climate changes and ways to reduce the environmental impact; -Organising an annual Energy Day; -Organising sanitation and tree planting campaigns in co-operation with the local education units
	TRANSPORT	Key actions and targets: -Organising a campaign to promote ecological means of transport; -Rehabilitate the of bypass route of Lipova town; -Closing the traffic on certain town streets; -Build bicycle lanes; Energy savings estimated at 3,732 MWh by 2020 / 272.68 to. CO_2 emissions;
Other sectors or field of actions covered by SEAP	Working with citizens	Key actions: -Tax exemption for owners who have their buildings thermally rehabilitated from their own resources; -Support for owners who access the Green House Programme;
	Green area	Key actions and targets: -Rehabilitation of Parcul Mic in Lipova; -Modernisation of the parks in Lipova; Estimated CO_2 emission reduction: 2,115 to.;
	Land use planning	Key action: -Introducing energy efficiency criteria in urban planning and land use;
	Public procurement	Key action: -Including the energy efficiency criterion as a technical criterion in public procurement. Procurement of street furniture made of recyclable materials;
	Waste	Key action and target: -Implementation of selective waste collection from the population, to encourage recycling and a 15% reduction of stored waste. Estimated CO_2 emission reduction: 34.05 to.;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	According to Decision no 186/11.05.2012, the SEAP development and implementation team was created in the town of Lipova. The team includes specialists from the town hall.
	Involvement of stakeholders and citizens	All members of Lipova's working team contributed with ideas of energy efficiency projects. They all had the possibility to suggest project ideas/measures, from traditional to innovative measures to be included in the action plan. A series of meetings were organised with both the domestic and

		the external stakeholders in charge of various sectors of activity. The meetings had several well-defined purposes: -Training sessions to understand the objective of the project -Training sessions to understand and accept the working ways and the methods applied for SEAP development -Working sessions for the collection of relevant data necessary for the emissions inventory -Working sessions for establishing specific objectives, targets and measures/actions required to reach the targets -Sessions for the analysis and assessment of the actions of identifying the potential of emission reduction -Sessions for reporting data and the project status The citizens' direct involvement was considered appropriate during the SEAP open debate. SEAP was thus completed with various measures/actions that the citizens can take as added value. After SEAP approval, a major objective is the regular communication with the stakeholders about the application of the SEAP measures in the implementation and monitoring period.
	Overall estimated budget	The 25 well-defined measures proposed within SEAP will lead to a 4,305 to CO_2 reduction by 2020, against the reference year (2008).
	Foreseen financing sources for the investments	898,350 EURO; The financing sources for the 25 measures proposed within SEAP are: own sources, non-reimbursable sources, credits and public/private partnerships.
	Planned measures for monitoring and follow up	During the first 2 years of implementation, after SEAP approval, the implementation of the measures will be evaluated. Special attention shall be paid to short-term measures (2 years), as well as long medium-term measures (5 years) and long-term measures (8 years) with a view of assessing the degree of SEAP implementation. Reports to be submitted locally and to the superior levels of the Covenant of Mayors. In the first two years of implementation, SEAP evaluation may require revision of certain actions. New energy efficiency measures may be taken to compete in reaching the targets established initially.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Introducing energy efficiency criteria in urban planning and land use; 2. Implementing selective waste collection from the population, to encourage recycling and a 15% reduction of stored waste; 3. Reducing CO_2 emissions by closing the traffic on certain town streets; 4. Building bicycle lanes on streets;	
Web address:	www.primarialipova.ro http://www.eumayors.eu/about/signatories_en.html?city_id=4062&seap	
Contact details:	**LIPOVA TOWN HALL**, Nicolae Bălcescu Street no. 26, Lipova, Arad County, Romania **Mayor, Iosif - Mircea JICHICI**, Tel: +40 257 561133, fax: +40 257 563 067	

3. TOWN OF NĂDLAC:

Conurbation:	**ARAD CONURBATION**
Conurbation Town:	**TOWN OF NĂDLAC**
Population:	**7,185 inhabitants**
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 153,812 MWh / CO_2 emissions: 23,766 to CO_2**
Details related to the public debate on SEAP	The public debate took place on March 27th 2013. The participants adopted all the 32 measures proposed within the SEAP.

Approval of SEAP by local authority	The Sustainable Energy Action Plan was approved by the Local Council of the town of Nadlac on March 27th 2013, by Decision no 47 of March 27th 2013	
Overall CO_2 emission reduction target by 2020	**21% by 2020 (4,975.5 to. CO_2)** **Per capita reduction**	
Long-term vision of the local authority	Energy safety and efficiency for the sustainable development of Nădlac: -Increase energy efficiency of buildings; -Use renewable energy; -Develop a more effective selective waste collection system;	
Objectives, targets:	The main objectives of the Sustainable Energy Action Plan are the following: 1. To use the existing geothermal potential to produce thermal energy; 2. To reduce the CO_2 emissions of the private transport with 2% (compared to 2008), by promoting non-motor transport (bike riding, walking); 3. To reduce energy consumption with 5% (compared to 2008), by applying measures to reduce energy consumption; 4. To encourage ecological procurement in all public institutions; 5. To promote energy efficiency of buildings and to support owners to adopt intelligent solutions; to extend the supply network of thermal agent from geothermal water; 6. To adopt energy efficiency criteria in planning urban development; 7. To make the population aware of climate changes; 8. To promote alternative energy sources; 9. To improve the environment by planting shrubs; 10. To reduce the amount of stored waste with 15% per year (selective collection);	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: To reduce energy consumption: -Distribution of a material about best practices regarding the environment and energy saving in public institutions; -Organising workshops on energy efficiency; Energy savings estimated at 93.17 MWh by 2020 / 7.1 to. CO_2 emissions;
	RESIDENTIAL	Key actions and targets: -Thermal rehabilitation of 4% of buildings; -Installing a heating system at PP1 Nursery School; -Installing biomass thermal plants in 2% of buildings; -Using geothermal energy; -Installing solar panels on buildings; Energy savings estimated at 9,972.8 MWh by 2020 / 49.6 to. CO_2 emissions;
	TERTIARY	Key actions: -Organising a campaign to increase public awareness of climate changes and ways to reduce the environmental impact; -Organising an annual Energy Day; -Support and consultancy for building owners who access the Green House programme (purchasing and mounting heating systems through renewable energy); -Organising sanitation and tree planting campaigns in co-operation with the local education units;
	TRANSPORT	Key actions and targets: -Organising a campaign for bicycle riding; -Building bicycle lanes – the Mako-Arad Project; -A 70% reduction of town traffic emissions - connecting DN7 to A1 Motorway; Energy savings estimated at 13,957.16 MWh by 2020 / 522.9 to. CO_2 emissions;
Other sectors or field of actions covered by SEAP	Working with citizens	Key action: Tax exemption for owners who have their buildings thermally rehabilitated from their own resources;

	Local electricity production	Key action: -New energy production capacities through the use of renewable sources: agricultural biomass;
	Local urban heating/cooling, CHP	Key action and target: -Rehabilitation of the geothermal network transport in institutional buildings; Energy savings estimated at 675 MWh by 2020 / 59.85 to. CO_2 emissions;
	Land use planning	Key actions: -Introducing energy efficiency criteria in urban planning and land use; -Cleaning and afforestation of degraded land on the territory of Nadlac town;
	Public procurement	Key action: -Including the energy efficiency criterion as a technical criterion in public procurement. Procurement of street furniture made of recyclable materials;
	Waste	Key action and target: -Implementation of selective waste collection from the population, to encourage recycling and a 15% reduction of stored waste. Estimated CO_2 emission reduction: 185,2 to CO_2;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	According to Decision no.15/26.01.2012, the SEAP development and implementation team was created in the town of Nadlac. The team includes specialists from the town hall.
	Involvement of stakeholders and citizens	All members of Lipova's working team contributed with ideas of energy efficiency projects. They all had the possibility to suggest project ideas/measures, from traditional to innovative measures to be included in the action plan. A series of meetings were organised with both the domestic and the external stakeholders in charge of various sectors of activity. The meetings had several well-defined purposes: -Training sessions to understand the objective of the project; -Training sessions to understand and accept the working ways and the methods applied for SEAP development; -Working sessions for the collection of relevant data necessary for the emissions inventory; -Working sessions for establishing specific objectives, targets and measures/actions required to reach the targets; -Sessions for the analysis and assessment of the actions of identifying the potential of emission reduction; -Sessions for reporting data and the project status; The citizens' direct involvement was considered appropriate during the SEAP open debate. SEAP was thus completed with various measures/actions that the citizens can take as added value. After SEAP approval, a major objective is the regular communication with the stakeholders about the application of the SEAP measures in the implementation and monitoring period.
	Overall estimated budget	1,713,285 EURO; The 32 well-defined measures proposed within SEAP will lead to a 4,975.5 to CO_2 reduction by 2020, against the reference year (2008).
	Foreseen financing sources for the	The financing sources for the 32 measures proposed within SEAP are: own sources, non-reimbursable sources, credits and public/private partnerships.

	investments	
	Planned measures for monitoring and follow up	During the first 2 years of implementation, after SEAP approval, the implementation of the measures will be evaluated. Special attention shall be paid to short-term measures (2 years), as well as long medium-term measures (5 years) and long-term measures (8 years) with a view of assessing the degree of SEAP implementation. Reports to be submitted locally and to the superior levels of the Covenant of Mayors. In the first two years of implementation, SEAP evaluation may require revision of certain actions. New energy efficiency measures may be taken to compete in reaching the targets established initially.
Actions selected to be implemented within the first year after finalization of the SEAP	1. To manage management the car park more effectively; to encourage bicycle riding. To reduce the administrative transport emissions with 3%, against 2008; 2. To reduce the CO_2 emissions of the private transport with 2% (compared to 2008), by promoting bike riding building bicycle lanes; 3. To organize regular sanitation and tree planting campaigns in co-operation with the local education units; 4. Implementing selective waste collection from the population, to encourage recycling and a 15% reduction of stored waste.	
Web address:	www.primaria-nadlac.ro http://www.eumayors.eu/about/signatories_en.html?city_id=4049&seap	
Contact details:	**TOWN HALL NĂDLAC** - 1 Decembrie Street no.24, postal code 315500, Nădlac, Arad County, Romania **Mayor Vasile CICEAC**, Tel: +40 257 474 325, +40257 474 345, +40257 474 844; Fax: +40257 473 300, E-mail: office@primaria-nadlac.ro	

4. TOWN OF PECICA:

Conurbation:	**ARAD CONURBATION**	
Conurbation Town:	**TOWN OF PECICA**	
Population:	**13,024 inhabitants**	
BEI year:	**2008**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 262,607 MWh / CO_2 emissions: 50,816 to CO_2;**	
Details related to the public debate on SEAP	The public debate took place on December 12th 2012 The participants adopted all the 32 measures proposed within the SEAP	
Approval of SEAP by local authority	The Sustainable Energy Action Plan was approved by the Local Council of the town of Pecica on December 12th 2012, by Decision no 174 of December 12th 2012	
Overall CO_2 emission reduction target by 2020	**21 % by 2020 (10,462 to CO_2)** **Per capita reduction**	
Long-term vision of the local authority (priority areas of action, main trends and challenges)	Energy safety and efficiency for the sustainable development of Pecica. -Increasing energy efficiency and reducing the dependency on fossil fuel-based energy sources; -Reducing energy costs; -Higher living standard in a cleaner environment;	
Objectives, targets:	The main objectives of the Sustainable Energy Action Plan are the following: 1. To reduce energy consumption in the institutional sector; 2. To improve the thermal insulation in the residential buildings sector; 3. To use new energy sources, including geothermal energy; 4. To promote ecological means of transport and reduce transport emissions; 5. To increase stakeholders' and public's awareness; 6. To encourage green procurement; 7. To reduce stored waste amounts and encourage waste recycling; 8. To adopt energy efficiency criteria in planning urban development; 9. To make green areas and to plant trees;	
SEAP actions in key	MUNICIPAL	Key actions and targets:

sectors:		To reduce energy consumption : -Distribution of a material about best practices regarding the environment and energy saving in public institutions; -Organising workshops on energy efficiency; Energy savings estimated at 22.53 MWh by 2020 / 11.78 to. CO_2 emissions;
	RESIDENTIAL	Key actions and targets: - thermal rehabilitation of 4% of buildings - installing biomass thermal plants in 2% of buildings - installing solar panels on buildings Energy savings estimated at 2,808.8 MWh by 2020 / 62.77 to. CO_2 emissions;
	TERTIARY	Key actions: -Organising a campaign to increase public awareness of climate changes and ways to reduce the environmental impact; -Organising an annual Energy Day; -Organising sanitation and tree planting campaigns in co-operation with the local education units;
	TRANSPORT	Key actions and targets: -Organising a campaign for bicycle riding; -Building 12 km of bicycle lanes; -Connecting DN7 to A1 Motorway; Energy savings estimated at 2,310.75 MWh by 2020 / 577.68 to. CO_2 emissions;
Other sectors or field of actions covered by SEAP	Working with citizens	Key action: -Tax exemption for owners who have their buildings thermally rehabilitated from their own resources;
	Local urban heating/cooling, CHP	Key action: -Using geothermal water for house heating and hot water (feasibility study);
	Land use planning	Key actions: -Introducing energy efficiency criteria in urban planning and land use; -Modernisation of Pecica urban centre by access way renovation and green area rehabilitation; planting 700 trees
	Public procurement	Key action: -Including the energy efficiency criteria as a technical criterion in public procurement. Procurement of street furniture made of recyclable materials;
	Waste	Key action and target: -Implementation of selective waste collection from the population, to encourage recycling and a 15% reduction of stored waste. Estimated CO_2 emission reduction: 185.2 to CO_2;
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	According to Decision no.360/15.03.2012, the SEAP development and implementation team was created in the town of Pecica. The team includes specialists from the town hall.
	Involvement of stakeholders and citizens	All members of Pecica's working team contributed with ideas of energy efficiency projects. They all had the possibility to suggest project ideas/measures, from traditional to innovative measures to be included in the action plan. A series of meetings were organised with both the domestic and the external stakeholders in charge of various sectors of activity. The meetings had several well-defined purposes: -Training sessions to understand the objective of the project; -Training sessions to understand and accept the working ways and

		the methods applied for SEAP development; -Working sessions for the collection of relevant data necessary for the emissions inventory; -Working sessions for establishing specific objectives, targets and measures/actions required to reach the targets; -Sessions for the analysis and assessment of the actions of identifying the potential of emission reduction; -Sessions for reporting data and the project status; The citizens' direct involvement was considered appropriate during the SEAP open debate. SEAP was thus completed with various measures/actions that the citizens can take as added value. After SEAP approval, a major objective is the regular communication with the stakeholders about the application of the SEAP measures in the implementation and monitoring period.
	Overall estimated budget	19,292,120 EURO; The 32 well-defined measures proposed within SEAP will lead to a 10,462 to CO_2 reduction against the reference year (2008).
	Foreseen financing sources for investments	The financing sources for the 32 measures proposed within SEAP are: own sources, non-reimbursable sources, credits and public/private partnerships.
	Planned measures for monitoring and follow up	During the first 2 years of implementation, after SEAP approval, the implementation of the measures will be evaluated. Special attention shall be paid to short-term measures (2 years), as well as long medium-term measures (5 years) and long-term measures (8 years) with a view of assessing the degree of SEAP implementation. Reports to be submitted locally and to the superior levels of the Covenant of Mayors. In the first two years of implementation, SEAP evaluation may require revision of certain actions. New energy efficiency measures may be taken to compete in reaching the targets established initially.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Including the energy efficiency criterion as a technical criterion in public procurement; 2. Implementing selective waste collection from the population, to encourage recycling and a 15% reduction of stored waste; 3. Building 12.5 km of bicycle lanes.	
Web address:	www.pecica.ro http://www.eumayors.eu/about/signatories_en.html?city_id=4035&seap	
Contact details:	**TOWN HALL PECICA**, postal code 317235, Second Street no.150, Arad County, Romania Tel: +40 257 468 323, Fax: +40 257468 633 **Mayor Mr. Petru ANTAL,** primaria.pecica@upcmail.ro	

5. MUNICIPALITY OF SÂNTANA:

Conurbation:	**ARAD CONURBATION**
Conurbation Town:	**MUNICIPALITY OF SÂNTANA**
Population:	**13,000 inhabitants**
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 118,879 MWh;** **CO_2 emissions: 15,470 to CO_2;**
Details related to the public debate on SEAP	The public debate took place on November 20th 2012. The participants adopted all the 32 measures proposed within the SEAP
Approval of SEAP by local authority	The Sustainable Energy Action Plan was approved by the Local Council of the town of Santana on November 20th 2012, by Decision no 174 of November 20th 2012.
Overall CO_2 emission	**20 % by 2020**

reduction target by 2020	**Per capita reduction**	
Long-term vision of the local authority	Energy safety and efficiency for the sustainable development of Santana: -Increasing energy efficiency; -Reducing energy costs; -Higher living standard in a cleaner environment;	
Objectives, targets:	The main objectives of the Sustainable Energy Action Plan are the following: 5. To improve the thermal insulation in the residential buildings sector; 6. To reduce energy consumption in the institutional sector; 7. To reduce energy consumption in the public lighting system 8. To increase energy efficiency of buildings 9. To use new energy sources 10. To promote ecologic means of transport 11. To increase stakeholders' and public's awareness 12. To encourage green procurement 13. To encourage waste recycling 14. To adopt energy efficiency criteria in planning urban development 15. To make green areas and to plant trees	
SEAP actions in key sectors:	MUNICIPAL	Key actions and targets: -Distribution of a material about best practices regarding the environment and energy saving in public institutions; -Organising workshops on energy efficiency Estimated CO_2 reduction target per sector in 2020: 40 to.
	RESIDENTIAL	Key actions and targets: -Thermal rehabilitation of 4% of buildings; -Installing biomass thermal plants in 2% of buildings; -Installing solar panels on buildings; Energy savings estimated at 8,477.5 MWh by 2020 / 31.32 to. CO_2 emissions;
	TERTIARY	Key actions: -Organising a campaign to increase public awareness of climate changes and ways to reduce the environmental impact -Organising an annual Energy Day -Organising sanitation and tree planting campaigns in co-operation with the local education units
	TRANSPORT	Key actions and targets: -Organising a campaign for bicycle riding; -External buses outside the town; -Building bicycle lanes; Energy savings estimated at 564.75 MWh by 2020 / 141.185 to. CO_2 emissions;
Other sectors or field of actions covered by SEAP	Working with citizens	Key actions: -Tax exemption for owners who have their buildings thermally rehabilitated from their own resources; -Support for the owners who access the Green House Programme.
	Land planning	Key action: Introducing energy efficiency criteria in urban planning and land use;
	Public procurement	Key actions: Including the energy efficiency criterion as a technical criterion in public procurement. Procurement of street furniture made of recyclable materials
	Waste	Key action and target: - Implementation of selective waste collection from the population, to encourage recycling and a 15% reduction of stored waste. Energy savings estimated at 4,500 MWh by 2020 / 225 to. CO_2 emissions;
Organizational and financial aspects:	Coordination and organizational structures	According to Decision no 17/25.01.2012 the SEAP development and implementation team was created in the town of Santana. The team includes specialists from the town hall.

	created/assigned Staff capacity allocated	
	Involvement of stakeholders and citizens	All members of Santana's working team contributed with ideas of energy efficiency projects. They all had the possibility to suggest project ideas/measures, from traditional to innovative measures to be included in the action plan. A series of meetings were organised with both the domestic and the external stakeholders in charge of various sectors of activity. The meetings had several well-defined purposes: -Training sessions to understand the objective of the project -Training sessions to understand and accept the working ways and the methods applied for SEAP development -Working sessions for the collection of relevant data necessary for the emissions inventory -Working sessions for establishing specific objectives, targets and measures/actions required to reach the targets -Sessions for the analysis and assessment of the actions of identifying the potential of emission reduction -Sessions for reporting data and the project status The citizens' direct involvement was considered appropriate during the SEAP open debate. SEAP was thus completed with various measures/actions that the citizens can take as added value. After SEAP approval, a major objective is the regular communication with the stakeholders about the application of the SEAP measures in the implementation and monitoring period.
	Overall estimated budget	526,200 EURO; The 32 well-defined measures proposed within SEAP will lead to a 3,119 to CO_2 reduction against the reference year (2008).
	Foreseen financing sources for the investments	The financing sources for the 32 measures proposed within SEAP are: own sources, non-reimbursable sources, credits and public/private partnerships.
	Planned measures for monitoring and follow up	During the first 2 years of implementation, after SEAP approval, the implementation of the measures will be evaluated. Special attention shall be paid to short-term measures (2 years), as well as long medium-term measures (5 years) and long-term measures (8 years) with a view of assessing the degree of SEAP implementation. Reports to be submitted locally and to the superior levels of the Covenant of Mayors. In the first two years of implementation, SEAP evaluation may require revision of certain actions. New energy efficiency measures may be taken to compete in reaching the targets established initially.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Reducing fuel consumption in administration; 2. Implementing selective waste collection from the population, to encourage recycling and a 15% reduction of stored waste; 3. Purchasing bicycles for the town hall employees; 4. Building an extended network of bicycle lanes;	
Web address:	www.primariasantana.ro http://www.eumayors.eu/about/signatories_en.html?city_id=3353&seap	
Contact details:	**TOWN HALL SÂNTANA,** Muncii Street no.120A, Sântana, 317280 Arad, Romania, Tel: +40 257 462 082 **Mayor, Daniel – Sorin TOMUȚA**, daniel.tomuta@primariasantana.ro	

MUNICIPALITY OF TIMIŞOARA:
TIMIŞOARA MUNICIPALITY SEAPs IN FIGURES:

Conurbation Town/ Municipality	Population	BEI year:	Final energy consumption (MWh)	CO2 emissions: (tones)	CO2 emission reduction target by 2020	CO2 Proposed reduction (tones)	Budget EURO
BUCOVĂŢ	1,597	2008	9,209	3,595	21%	763	3,193,500
GHIRODA	6,107	2008	42,104	14,232	20%	2,852	3,193,500
GIARMATA	6,661	2008	39,419	13,307	20%	2,780	1,725,000
GIROC	8,795	2008	30,829	10,326	22%	2,264	10,315,000
PECIU NOU	5,158	2008	42,687	16,028	20%	3,239	3,000,000
REMETEA MARE	2,295	2008	23,150	8,417	20%	1,725	1,227,100
SÎNMIHAIU ROMÂN	6,402	2008	30,572	11,324	20%	2,280	2,385,000
ŞAG	3,141	2008	20,533	7,394	20%	1,538	3,000,000
TOTAL:	**40,156**		**238,503**	**84,623**		**17,441**	**28,039,100**

1. BUCOVĂŢ

Conurbation:	**TIMISOARA CONURBATION**
Conurbation Town:	**BUCOVĂŢ Town**
Population:	Number of population in 2013: **1,597** (at 1st July)
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption 20,533 MWh / CO_2 emissions: 7.394 t**
Details related to the public debate on SEAP	The open public debate on SEAP was held at Town Hall of Bucovăţ in data **15.07.2013.**
Approval of SEAP by local authority	The SEAP was approved by **Bucovăţ Local Council Decision nr.32 issued in 08.08.2013** Timisoara Municipality – Environmental Directory webpage www.dmmt.ro/section dedicated to CONURBANT Project http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=863 http://www.dmmt.ro/modules.php?module=news&lg=ro&d=2013-8-08
Overall CO_2 emission reduction target by 2020	**21 % CO_2 emission reduction target by 2020** **Per capita reduction**
Long-term vision of the local authority	The vision of Bucovăţ Town public administration is to assure energetic security both for public and private sector, with the clear orientation toward sustainable development of the town by creating a welbeing environment for the whole citizens. The priorities in setting their targets are to degrease the overall cost for energy consumption in town, to mittigate the public admininstration effort to sustain the local institutions ressource, by setting active measures in the building sector which consist mainly in insulation of all buildings and sustainable heating systems, encouraging sustainable consumption and production, implementation of renewable energy sources, and also creating a structure to provide biomass from sustainable forestration.
Objectives, targets:	The main objectives of the SEAP are to enhance the quality of life and energy comfort at the least cost to the citizens of the town by means of decentralized renewable energy supply/sustainable heating with a parallel implementation of energy efficiency measures. Bucovăţ Town developed a policy of energy management at the local level, which covers energy consumption in municipal and residential buildings, street lighting, transport, town planning, education/awareness raising, training, waste management, green areas, and agriculture, covering a number of 63 actions. Objective 1. Reduction of energy consumption and $C0_2$ emissions in the private houses and public owened buildings; Objective 2. Reduced fuel consumption and $C0_2$ emissions and mobility;

	Objective 3. Spatial planning, green public procurement and local networking; Objective 4. Encouraging the use of renewable energy sources. Objective 5: Sustainable waste management and agriculture. Objective 6: Education, training and raising awarness of citizens; Objective 7: Development of town infrastructure: water supply, serarage, natural gas, communal roads and facilities; Industrial sector has not been taken into account for the emission analysis, being outside of the competency and local public authority influence area. Therefore, no measures and actions have been committed to this sector.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES	-A.1. Carrying out energy audits for public buildings owned by local authority and their energetic labeling. -A.2. Completion of technical and economic documentation in order to accomplish thermal rehabilitation and energy efficiency projects in public buildings, including the use of renewable energy source and smart metering systems. -A.3. Submission of applications within the National Programme to increase energy efficiency and use of RES in the public sector for municipal buildings. -A.4. Implementation of a system of energy management in buildings owned by the local authority. -A.5. Thermal rehabilitation of public buildings -A.6. Promoting the thermal insulation and energetic efficiency of 5 buildings from the tertiary sector (commercial premises/ offices/headquarters, kindergardens, medical institution). -A.7. Installation of solar collectors for hot water production to sports and recreation facilities. -A.8. Upgrading indoor lighting using energy efficient equipments in the education institutions of the town. -A.9. Energy efficiency and ensuring the sustainability of energy using photovoltaic panels for two public buildings -A.10. Installing energy efficient centrals using biomass in 3 public buildings -A.11. Using locally produced sustainable sources of biomass (energy willow plantation) for heating certain public buildings Costs – 171,500 EURO / 771,750 RON Estimated CO_2 reduction target per sector in 2020 – 34 t.
	RESIDENTIAL BUILDINGS	-A.12. Complete thermal insulation of private buildings at a rate of 5% per year from the existing noninsulated houses from town. -A.13. Promote and support the widening of natural gas network in Bucovăț Town, in order to provide households heating on gas -A.14. Promoting through information and technical support, the possibility of implementing the "GREEN HOUSE" National Programme for housing and other national programmes aimed at using renewable energy sources. -A.15. Promoting upgrading the housholds /residential heating systems, by replacing the old classic stoves with new, energy efficient central heating systems/stoves, using locallly produced biomass -A.16. Promoting the use of locally produced sustainable sources of biomass (energy willow plantation) for heating of private buildings in the residential sector -A.17. Promoting the instalation of at least one solar collector for heating hot water in residential buildings, at a rate of 10%/year , compared to the total numbers of households with south-facing roofs. -A.18. Modernization of housing individual heating systems by replacing the classical biomass stoves with new energy efficient centrals/stoves

		-A.19. Promoting a self-monitoring tool for household energy consumption. Costs – 512,000 EURO / 2,304,000 RON Estimated CO_2 reduction target per sector in 2020 – 267 t.
	PUBLIC LIGHTNING	-A.20. Conducting an energy audit of public lighting. -A.21. Modernization of architectural and decorative lighting of buildings based on systems with low power consumption (LED)-A.23. Installation of independent energy lighting systems (using renewable energy - PV) in residential areas. -A.22. Installation of independent energy lighting systems (using renewable energy - PV) in residential areas. -A.23. Installation of motion sensors in public streets lighting units in the less traveled streets of the peripheral area of Town -A.24. Rehabilitation and modernization of public lighting in the town center and on the town's main roads by annual replacement of 10% of existing illumination fixtures with energy efficient ones/LED Lightning Technology Costs – 73,500 EURO / 330,750 RON Estimated CO_2 reduction target per sector in 2020 – 1 t.
Other sectors or field of actions covered by SEAP	MUNICIPAL FLEET	- B.1. Promoting mobility by acquisition of a number of 10 bicycles, 2 bicycles / year for civil servants in the Town Hall Sînmihaiu Român and for local police officials, with metering devices for recording the traveled distance -B.2. Reducing emissions from private transport by 1% compared to 2008 - by promoting cycling and walking -B.3. Rationalizing fleet traveling for the town owned vehicles -B.4. Promoting mobility in Bucovăț Town by extending bicycle routes at local level -B.5. Local mobility by extending cycling network in order to ensure connection to neighboring villages and Timişoara Municipality -B.6. Limiting vehicles speed to 30km/h for less CO^2 emissions, improving air quality, making cycling, walking more enjoyable and for traffic safety. Costs – 96,500 EURO / 434,250 RON Estimated CO_2 reduction target per sector in 2020 – 2 t.
	PUBLIC TRANSPORT	-B.7. Creating a traffic study in order to releave the accurate traffic data, the need of population regarding public and private transport and connection with other localities of the area and Timişoara Municipality -B.8. Promoting the acquisition of new vehicles with low fuel consumption and emissions -B.9. Purchase of a minibus with low fuel consumption for transport pupils and towns citizens in order to ensure the connection with the neighboring localities and Timisoara Municipality Costs – 57,500 EURO / 434,250 RON Estimated CO_2 reduction target per sector in 2020 –1 t.
	PRIVATE AND COMMERCIAL TRANSPORT	-B.10. Promote the use of car-sharing system -B.11. Promoting the acquisition of new vehicles with low fuel consumption and emissions Costs – 1,500 EURO / 6,750 RON Estimated CO_2 reduction target per sector in 2020 –1 t.
	PHOTOVOLTAIC	-C.1. Implementation of a Public - Private Partnership to achieve a photovoltaic park (minimum 3 MWp, Local Council share min. 5%) -C.2. Promoting photovoltaic installations in the residential and public sectors at a rate of 2% per year with an average of 3KW -C.3. Providing public lighting of public parks, green areas, etc. with lighting units powered by solar panels Estimated costs – 527,000 EURO / 2,371,500 RON

		Estimated CO_2 reduction target per sector in 2020 –176 t.
	BIOMASS FROM SUSTAINABLE EXPLOTATION	-C.4. Creation of a biomass supply center required for the production of heat in the residential sector, particularly in homes, biomass derived from sustainable explotation, controlled, or providing a list of suppliers of biomass wood boiler enabling its use in individual suppliers delivering/distributing firewood from reliable sources of sustainable forestry Estimated costs – 10,000 EURO / 45,000 RON Estimated CO_2 reduction target per sector in 2020 –NA.
	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Actions and targets: -D.1. Inclusion of energy efficiency, use of renewable energy and sustainable spatial development in the General Urban Plan and Local urban regulations -D.2. Strategic urban planning approach addressing issues of mitigation and adaptation to climate changes, to ensure a high degree of preparedness planning and public infrastructure to climate risks -D.3. Increasing the attractiveness and functionality of common territorial public domain -D.4. Development of Urban Mobility Study/Plan of the Town Bucovăț. -D.4. Issuing building construction permits only after preparation and submission by the client of the execution documentation for the new buildings that contain in the project the calculated energy performance, according to Law no.372/2005. -D.5. Energy audits of public buildings and their energy performance certification, according to Law no.372/2005 (subject to sale, purchase/lease) Estimated costs – 30,000 EURO / 135,000 RON Estimated CO_2 reduction target per sector in 2020 –NA.
	GREEN AREAS	-D.6. Increasing green areas surfaces on the territory of the Town of Bucovăț and for recreational purposes -D.7. Planting on the public domain a number of at least 50 trees per year, out of the species resilients to drought and heat stress Estimated costs – 37,000 EURO / 166,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	ENERGY EFFICIENCY REQUIREMENTS / STANDARDS	Actions and targets: -E.1. Purchase of high energy efficiency class IT, electronic and electrical equipments and devices -E.2. Purchase of paper at a rate of 25%/year, provided from recycled paper -E.3. Including in the specifications for the Public Procurement of services, works of requirements /green criterias regarding machineries, equipments, energy saving, management module, transport and neutralization of waste, environmental management standards Estimated costs – 26,500 EURO / 119,250 RON Estimated CO_2 reduction target per sector in 2020 –NA
	AWARENESS RAISING AND LOCAL NETWORKING	Actions and targets: -F.1. Organizing annualy Energy Day of Bucovăț Town as event-organized in the frame of EUSEW - European Sustainable Energy Week -F.2. Local networking in the Local Energy Forum - a consultative body for the implementation of Sustainable Energy Action Plan and organizing at least two annual workshops to discuss issues related to the implementation of the SEAP -F.3. Awareness of citizens about opportunities in reducing energy

		consumption, using best practices and technologies state-of the-art, available on the market -F.4. Organize a campaign to raise public awareness about the possibility of treating biodegradable waste by composting and waste reduction subject to final disposal Estimated costs – 12,500 EURO / 56,250 RON Estimated CO_2 reduction target per sector in 2020 –NA
	TRAINING AND EDUCATION	Actions and targets: -F.5. Training an employee of the Town Hall Bucovăț, responsible for monitoring energy consumption in the Town (Energy Manager) -F.6. Organization every two years for a Training for energy efficiency in buildings -F.7. Promotion in primary and secondary school of an Environmental Education Programme -F.8. Organizing a contest / competition on environmental responsibility, focused on reducing energy consumption, efficiency and renewable energy Estimated costs – 12,500 EURO / 56,250 RON Estimated CO_2 reduction target per sector in 2020 –NA
	SUSTAINABLE WASTE MANAGEMENT	Actions and targets: -G.1. Increased municipal waste recycling by 5% per year -G.2. Reducing by 10% the amount of waste subject to final disposal. -G.3. Organizing a number of two annual campaigns for collection of waste electrical and electronic appliances WEEE -G.4. Promoting the selective collection of biodegradable waste from households and transform into compost through aerobic composting procedure (composting boxes in households) -G.5. Increasing awareness among citizens regarding the proper management of selective waste collection by conducting one annual awareness activity Estimated costs – 38,000 EURO / 171,000 RON Estimated CO_2 reduction target per sector in 2020 –16t.
	SUSTAINABLE AGRICULTURE	-H.1. Stimulate the development of energy crops - energy willow (Salix viminalis) in the Town of Bucovăț and conducting a sustainable exploitation and for the village road protection - at least 1 hectare / year; Estimated costs – 14,000 EURO / 63,000 RON Estimated CO_2 reduction target per sector in 2020 –265 t.
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Decision in the Bucovăț Community was to form a working team including representatives from the various departments or services within the administration, local council representatives, representatives from local institutions, citizens and other stakeholders. The need of an external consultant support was absolutely necessary in order to pursue structured and focused work towards achieving the requirements of membership. The external support received by the local SEAP team and local administration for the SEAP development comes from the `Conurbant` - IEE project team from the Timisoara City Hall municipalities, which helped in many ways the orientation of the SEAP. The internal SEAP team composition was decided by the Mayor within the Decision no.3 issued in 13rd January 2012.
	Involvement of stakeholders and citizens	Stakeholder involvement in the case of Bucovăț, was understood at first as a priority, so the development working team's of SEAP had involved representatives of various local business and instutions structures. Also part of the citizens were involved during the public debate on the SEAP, were they had the opportunity to act and propose new measures according to the local comunity needs toward energy efficiency and social development of the city. Several

		local energy forums and workshops/working groups were held during the SEAP development, were all the participans proposed different measures and actions oriented to CO2 reduction and also adaption measures for climate change. The working groups and local energy forums will support in the future the SEAP actions implementation.
	Overall estimated budget	The overall estimated budget for implement all the **62 actions** is **1,650,000 EURO**, 7,425,000 RON (1 Euro=4.5 RON)
	Foreseen financing sources for the investments	Local budget, National funds and Programmes, EU Structural funds, Energy Efficiency Fund, ESCOs (EPC), public private partnerships (PPP). A major part of the budget allocate for the SEAP actions implementation will come from local administration budget, and for each measures the budget will be agreed and approved in the Local Council prior to implementation, according the internal legal requirements. EU project proposals will be set up for different feasible actions according to the criterias defined in each action of the call.
	Planned measures for monitoring and follow up	In the first year of the implementation period, monitoring instruments will be designed in order to assure the control of measures implementation. Specific indicators will be set up for each measures, in order to have a clear picture of the outcomes year by year. After the first two year of implementation an Evaluation Report will be establish in order to report the implementation status of the SEAP, consisting in performance evaluation results of the short measures proposed to be implemented and also will contain options for improvement.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Awareness campaigns for the citizens 2. Green spaces and parks development. The actions were approved by Local Council Bucovăț Decision no.32 issued in 8rd July 2013.	
Web address:	http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=863 http://www.dmmt.ro/modules.php?module=news&lg=ro&d=2013-8-08 http://www.primaria.bucovat.tm@gmail.com http://www.eumayors.eu/about/signatories_en.html?city_id=3637&seap	
Contact details:	**TOWN HALL BUCOVĂȚ, Timiş County, Str.Principală no.178, Romania** **Ionel - Tiberiu JIVAN, Mayor** – +40 256 296 282, primaria.bucovat.tm@gmail.com Gheorghe POPA - Deputy Mayor, – +40 256 296 282, primaria.bucovat.tm@gmail.com	

2. GHIRODA:

Conurbation:	**TIMISOARA CONURBATION**
Municipality/Conurbation Town:	**GHIRODA Town**
Population:	Number of population in 2013: **6,107** (at 1st July)
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption 42,104 MWh / CO_2 emissions: 14,232 t**
Details related to the public debate on SEAP	The open public debate on SEAP was held at Town Hall of Ghiroda in **22.07.2013.**
Approval of SEAP by local authority	The SEAP was approved by the **Local Council Decision nr.84 issued in 22.07.2013** Timisoara Municipality – Environmental Directory webpage www.dmmt.ro/section dedicated to CONURBANT Project http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=859 http://www.dmmt.ro/modules.php?module=news&id=310&lg=ro
Overall CO_2 emission reduction target by 2020	**20 % CO_2 emission reduction target by 2020** **Per capita reduction**
Long-term vision of the	The vision of GhirodaTown public administration is to assure energetic security both for

<table>
<tr><td>local authority (priority areas of action, main trends and challenges)</td><td colspan="2">public and private sector, with the clear orientation toward sustainable development of the town by creating a welbeing environment for the whole citizens.
The priorities in setting their targets are to degrease the overall cost for energy consumption in town, to mittigate the public admininstration effort to sustain the local institutions ressource, by setting active measures in the building sector which consist mainly in insulation of all buildings and sustainable heating systems, encouraging sustainable consumption and production, implementation of renewable energy sources, and also creating a structure to provide biomass from sustainable forestration.</td></tr>
<tr><td>Objectives, targets:</td><td colspan="2">The main objectives of the SEAP are to enhance the quality of life and energy comfort at the least cost to the citizens of the town by means of decentralized renewable energy supply/sustainable heating with a parallel implementation of energy efficiency measures.
Ghiroda Town developed a policy of energy management at the local level, which covers energy consumption in municipal and residential buildings, street lighting, transport, town planning, education/awareness raising, training, waste management, green areas, and agriculture, covering a number of 42 actions.
Objective 1. Reduction of energy consumption and $C0_2$ emissions in the private houses and public owened buildings;
Objective 2. Reduced fuel consumption and $C0_2$ emissions and mobility;
Objective 3. Spatial planning, green public procurement and local networking;
Objective 4. Encouraging the use of renewable energy sources.
Objective 5: Sustainable waste management and agriculture.
Objective 6: Education, training and raising awarness of citizens;
Objective 7: Development of town infrastructure and facilities;
Industrial sector has not been taken into account for the emission analysis, being outside of the competency and local public authority influence area. Therefore, no measures and actions have been committed to this sector.</td></tr>
<tr><td rowspan="2">SEAP actions in key sectors:</td><td>MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES

AND

TERTIARY SECTOR</td><td>Actions and targets:
-A.1. Carrying out energy audits for public buildings owned by local authority and their energetic labelling.
-A.2. Completion of technical and economic documentation in order to accomplish thermal rehabilitation and energy efficiency projects in public buildings, including the use of renewable energy source and smart metering systems.
-A.3. Submission of applications within the National Programme to increase energy efficiency and use of RES in the public sector for local public buildings.
-A.4. Upgrading interior lighting using energy efficient equipments in buildings of public schools.
-A.5.Thermal rehabilitation of public buildings in the public the tertiary sectors and implementing energy efficiency measures and use of renewable energy.
Costs – 335,000 EURO / 1,507,500 RON
Estimated CO_2 reduction target per sector in 2020 – 10 t.</td></tr>
<tr><td>RESIDENTIAL BUILDINGS</td><td>Actions and targets:
-A.6. Complete isolation of private buildings at a rate of 10% per year.
-A.7. Promoting the installation of thermostats in residential buildings using natural gas as a heating source.
-A.8. Promoting through information and technical support, the possibility of implementing the "Green House" National Programme for housing and other national programme aimed at using renewable energy source.
-A.9. Upgrading the heat systems of individual homes by replacing the classical stoves with biomass heating systems.
-A.10. Promoting the instalation of at least one solar collector for heating hot water in residential buildings, at a rate of 5%/year , compared to the total numbers of households with south-facing</td></tr>
</table>

		roofs. -A.11. Promoting a self-monitoring tool for household energy consumption. consumption. Costs – 2,034,000 EURO / 9,153,000 RON Estimated CO_2 reduction target per sector in 2020 – 506 t.
	PUBLIC LIGHTNING	Actions and targets: -A.12. Achieving an energy audit of the public lighting system of the GhirodaTown. -A.13. Rehabilitation and modernization of public lighting in the center and on the Ghiroda's main roads by annual replacement of 10% of existing illumination fixures with energy efficient ones. Costs – 212,000 EURO / 954,000 RON Estimated CO_2 reduction target per sector in 2020 – 44 t.
	PUBLIC TRANSPORT	Actions and targets: -B.1. Urban mobility through expansion network for bicycles and promoting the use of bicycles in Ghiroda Town. -B.2. Supporting and promoting the expansion of public transport network and connection of Timisoara to Ghiroda Town. Costs – 200,000 EURO / 900,000 RON Estimated CO_2 reduction target per sector in 2020 – 1,248 t.
	PRIVATE TRANSPORT	Action and target: -B.3. Promoting the acquisition of new vehicles with low fuel consumption and emissions. Costs – 3,500 EURO / 15,750 RON Estimated CO_2 reduction target per sector in 2020 –NA
	PHOTOVOLTAIC	Actions and targets: - C.1. Promoting public - privat partnership to achive a photovoltaic park (minimum 3 MWp involving in 5% the Local Council). -C.2. Providing public lighting of parks/squares by public lighting units powered by solar panels. -C.3. Promoting photovoltaic instalations in the residential and public sector at a rate of 2% per year with an average of 3KW. Estimated costs – 253,000 EURO / 1,138,500 RON Estimated CO_2 reduction target per sector in 2020 – 80 t.
	BIOMASS FROM SUSTAINABLE EXPLOTATION	- C.4. Creation of a biomass supply required for the production of heat in the residential sector, particularly in homes, biomass derived from sustainable logging, controlled, or providing a list of suppliers of biomass wood boiler enabling its use in individual suppliers delivering / distributing firewood from reliable sources of sustainable forestry. Estimated costs – 25,000 EURO / 112,500 RON Estimated CO_2 reduction target per sector in 2020 –897 t.
	STRATEGIC URBAN PLANNING	Actions and targets: -D.1. Inclusion in the General Urban Plan and Local regulations of urbanism aspects of energy efficiency, use of renewable energy and sustainable spatial development. -D.2. Issuance of building permits only after preparation and submission by the beneficiary of the execution documentation of new buildings that have calculated in the the energy performance, according to Law 372/2005 -D.3. Issuing energy performance certificates for buildings subject to sale / purchase / lease, according to Law nr.372/2005 Estimated costs – 8,000 EURO / 36,000 RON Estimated CO_2 reduction target per sector in 2020 –NA.
	GREEN AREAS	Action and target: -D.4. Promote planting of trees by citizens and planting at least 50 trees / year on public domain with drought-resistant tree species and heat stress.

		Estimated costs – 10,000 EURO / 45,000 RON Estimated CO_2 reduction target per sector in 2020 –NA
	ENERGY EFFICIENCY REQUIREMENTS / STANDARDS	Actions and targets: -E.1.Purchase of IT equipment, electronic and electrical energy high efficiency class -E.2. Acquisition of at least 75% of the paper used for writing purchased from the local budget, recycled paper, staged 2020. -E.3. To include in the specifications for the procurement of services, works of requirements / criteria green regarding machinery, equipment, energy saving, management module, transport and neutralization of waste, environmental protection Estimated costs – 48,000 EURO / 216,000 RON Estimated CO_2 reduction target per sector in 2020 –NA
	ADVISORY SERVICES	Action and target: -F.1. Acquisition of specialized advisory services to ensure the best technical solutions for implementing energy efficiency measures, renewable energy use. Estimated costs – 5,000 EURO / 22,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	AWARENESS RAISING AND LOCAL NETWORKING	Actions and targets: -F.2.Organize annual Energy Day of the Ghiroda Town as event-driven European Sustainable Energy Week -F.3. Establishment of Local Energy Forum - a consultative body for the implementation of Sustainable Energy Action Plan and organize at least two annual workshops to discuss issues related to the implementation of the SEAP -F.4. Awareness of citizens about opportunities in reducing energy consumption, using best practices and technologies state-of the-art, available on the market. -F.5. Organize a campaign to raise public awareness about the possibility of treating biodegradable waste by composting and waste reduction subject to final disposal. Estimated costs – 19,000 EURO / 85,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	TRAINING AND EDUCATION	Actions and targets: -F.6. Training an employee of the Town Hall Ghiroda, responsible for monitoring energy consumption in the town -F.7. Organization every two years of a Training for energy efficiency in buildings. -F.8. Promotion in primary and secondary school of an Environmental Education Programme. -F.9. A contest / competition curricula on environmental responsibility, focused on reducing energy consumption, efficiency and renewable energy. Estimated costs – 8,500 EURO / 38,250 RON Estimated CO_2 reduction target per sector in 2020 –NA
	SUSTAINABLE WASTE MANAGEMENT	Actions and targets: -G.1. Increased municipal recycling by 5% per year. -G.2. Reducing by 20% the amount of waste subject to final disposal. -G.3. Organizing a number of two annual campaigns for collection of waste electrical and electronic appliances DEE. -G.4. Promoting the selective collection of biodegradable waste from households and transform into compost through aerobic composting procedure (composting boxes in households). -G.5. Increasing awareness regarding the proper management of waste selective collection by conducting one annual activity awareness among population. Estimated costs 17,500 EURO / 78,750 RON

		Estimated CO_2 reduction target per sector in 2020 – NA
	SUSTAINABLE AGRICULTURE	- H.1. Stimulate the development of energy crops with energy willow (Salix viminalis) in the Town of Ghiroda, sustainable exploitation and use of biomass in heating public buildings and private in Ghiroda Town - at least 1 hectare/year as a protection of roads. Estimated costs – 15,000 EURO / 67,500 RON Estimated CO_2 reduction target per sector in 2020 – 67 t.
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Decision in Ghiroda Community was to form a working team including representatives from the departments or services within the administration, local council representatives, representatives from local institutions, citizens and other stakeholders. The need of an external consultant support was absolutely necessary in order to pursue structured and focused work towards achieving the requirements of membership. The external support received by the local SEAP team and local administration for the SEAP development comes from the `Conurbant` - IEE project team from the Timisoara City Hall municipalities, which helped in many ways the orientation of the SEAP. The internal SEAP team composition was decided by the Mayor within the Decision no.127 issued in 22nd of December 2011. In Ghiroda Town a task force team is involved in SEAP implementation and monitoring process, coordinated by Myor and formed by Deputy Mayor, Head of Urbanism and Land Plannind Service, Environmental Responsible and two local counsellors.
	Involvement of stakeholders and citizens	Stakeholder involvement in the case of Ghiroda, was understood at first as a priority, so the development working team's of SEAP had involved representatives of various local business and instutions structures. Also part of the citizens were involved during the public debate on the SEAP, were they had the opportunity to act and propose new measures according to the local comunity needs toward energy efficiency and social development of the city. Several local energy forums and workshops/working groups were held during the SEAP development, were all the participans proposed different measures and actions oriented to CO2 reduction and also adaption measures for climate change. The working groups and local energy forums will support in the future the SEAP actions implementation.
	Overall estimated budget	The overall estimated budget for implement all the **42 actions** is **3,193,500 EURO**, 14,370,7500 RON (1 Euro=4.5 RON)
	Foreseen financing sources for the investments	Local budget, National funds and Programmes, EU Structural funds, Energy Efficiency Fund, ESCOs (EPC), public private partnerships (PPP). A major part of the budget allocate for the SEAP actions implementation will come from local administration budget, and for each measures the budget will be agreed and approved in the Local Council prior to implementation, according the internal legal requirements. EU project proposals will be set up for different feasible actions according to the criterias defined in each action of the call.
	Planned measures for monitoring and follow up	In the first year of the implementation period, monitoring instruments will be designed in order to assure the control of measures implementation. Specific indicators will be set up for each measures, in order to have a clear picture of the outcomes year by year. After the first two year of implementation an Evaluation Report will be establish in order to report the implementation status of the SEAP, consisting in performance evaluation results of the short measures proposed to be implemented and also will contain

		options for improvement.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Achieving an energy audit of the public lighting system of the Ghiroda Town. 2. Carrying out energy audits for public buildings owned by local authority and their energetic labeling. 3. Thermal rehabilitation of one public buildings 4. Rehabilitation and modernization of public lighting based on LED technology The actions were approved by Peciu Nou Local Council Decision no.84 issued in 22nd July 2013.	
Web address: *(Direct link to the webpage dedicated to the SEAP)*	http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=863 http://www.dmmt.ro/modules.php?module=news&lg=ro&d=2013-8-08 http://www.primaria.ghiroda@cjtimis.ro http://www.eumayors.eu/about/signatories_en.html?city_id=3584&seap	
Contact details:	**TOWN HALL GHIRODA,** Victoriei Street no.48, Romania, postal code 307200 **Vasile – Dorel CĂDARIU, Mayor** – +40 256 205201, primariaghiroda@yahoo.com Marcel CINCA - Deputy Mayor, – +40 256 205201, primariaghiroda@yahoo.com	

3. GIARMATA:

Conurbation:	***TIMISOARA CONURBATION***
Conurbation Town:	**GIARMATA Town**
Population:	Number of population in 2013**: 6,661** (at 1st July)
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption 39,419 MWh / CO_2 emissions: 13,307 t**
Details related to the public debate on SEAP	The open public debate on SEAP was held at Town Hall of Giarmata in **25.11.2013.**
Approval of SEAP by local authority	The SEAP was approved by the **Giarmata Local Council Decision nr. 113 issued in 27.11.2013**, Timisoara Municipality – Environmental Directory webpage www.dmmt.ro section dedicated to CONURBANT Project http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&lg=ro http://www.dmmt.ro/modules.php?module=news&id=313&lg=ro
Overall CO_2 emission reduction target by 2020	**20 % CO_2 emission reduction target by 2020** **Per capita reduction**
Long-term vision of the local authority	The vision of Giarmata Town public administration is to assure energetic security both for public and private sector, with the clear orientation toward sustainable development of the town by creating a welbeing environment for the whole citizens. The priorities in setting their targets are to degrease the overall cost for energy consumption in town, to mittigate the public admininstration effort to sustain the local institutions ressource, by setting active measures in the building sector which consist mainly in insulation of all buildings and sustainable heating systems, encouraging sustainable consumption and production, implementation of renewable energy sources, and also creating a structure to provide biomass from sustainable forestration.
Objectives, targets:	The main objectives of the SEAP are to enhance the quality of life and energy comfort at the least cost to the citizens of the town by means of decentralized renewable energy supply/sustainable heating with a parallel implementation of energy efficiency measures. Giarmata Town developed a policy of energy management at the local level, which covers energy consumption in municipal and residential buildings, street lighting, transport, town planning, education/awareness raising, training, waste management, green areas, and agriculture, covering a number of 64 actions. Objective 1. Reduction of energy consumption and CO_2 emissions in the private houses and public owened buildings; Objective 2. Reduced fuel consumption and CO_2 emissions and mobility; Objective 3. Spatial planning, green public procurement and local networking; Objective 4. Encouraging the use of renewable energy sources. Objective 5: Sustainable waste management and agriculture.

	Objective 6: Education, training and raising awarness of citizens; Industrial sector has not been taken into account for the emission analysis, being outside of the competency and local public authority influence area. Therefore, no measures and actions have been committed to this sector.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES	-A.1. Carrying out energy audits for public buildings owned by local authority and their energetic labelling. -A.2. Completion of technical and economic documentation in order to accomplish thermal rehabilitation and energy efficiency projects in public buildings, including the use of renewable energy source and smart metering systems. -A.3. Submission of applications within the National Programme to increase energy efficiency and use of RES in the public sector for municipal buildings. -A.4. Implementation of a system of energy management in buildings owned by the local authority. -A.5. Thermal rehabilitation of public buildings. -A.6. Promoting the thermal insulation and energetic efficiency on 5 buildings from the tertiary sector (commercial premises/ offices/headquarters, kindergardens, medical institution). -A.7. Installation of solar collectors for hot water production to sports and recreation facilities. -A.8. Upgrading indoor lighting using energy efficient equipment in the education institutionsof the town. -A.9. Energy efficiency and ensuring the sustainability of energy using photovoltaic panels for two public buildings. -A.10. Installing energy efficient centrals using biomass in three public buildings. -A.11. Using locally produced sustainable sources of biomass (energy willow plantation) for heating certain public buildings. Costs – 257,000 EURO / 1,156,500 RON Estimated CO_2 reduction target per sector in 2020 – 180 t.
	RESIDENTIAL BUILDINGS	-A.12. Complete thermal insulation of private buildings at a rate of 5% per year from the existing noninsulated houses from town. -A.13. Promote installation of thermostats in residential buildings that use natural gas as a heating source. -A.14. Promoting through information and technical support, the possibility of implementing the "GREEN HOUSE" National Programme for housing and other national programmes aimed at using renewable energy sources. -A.15. Promoting upgrading the housholds /residential heating systems, by replacing the old classic stoves with new, energy efficient central heating. -A.16. Promoting the use of locally produced sustainable sources of biomass (energy willow plantation) for heating of private buildings in the residential sector. -A.17. Promoting the instalation of at least one solar collector for heating hot water in residential buildings, at a rate of 10%/year , compared to the total numbers of households with south-facing roofs. -A.18. Modernization of housing individual heating systems by replacing the classical biomass stoves with new energy efficient centrals/stoves. -A.19. Promoting a self-monitoring tool for household energy consumption. Costs – 22,800 EURO / 102,600 RON Estimated CO_2 reduction target per sector in 2020 – 499 t.
	PUBLIC LIGHTNING	-A.20. Conducting an energy audit of public lighting. -A.21. Modernization of architectural and decorative lighting of

		buildings based on systems with low power consumption (LED). - A.22. Installation of independent energy lighting systems (using renewable energy - PV) in residential areas. -A.23. Installation of motion sensors in public streets lighting units in the less traveled streets of the peripheral area of Town. - A.24. Rehabilitation and modernization of public lighting in the town center and on the town's main roads by annual replacement of 10% of existing illumination fixtures with energy efficient ones/LED Lightning Technology. Costs – 78,000 EURO / 351,000 RON Estimated CO_2 reduction target per sector in 2020 – 9 t.
Other sectors or field of actions covered by SEAP	MUNICIPAL FLEET	-B.1. Promoting mobility by acquisition of a number of 10 bicycles, 2 bicycles / year for civil servants in the Town Hall Giarmata and for local police officials, with metering devices for recording the traveled distance. -B.2. Reducing emissions from private transport by 1% compared to 2008 - by promoting cycling and walking. -B.3. Rationalizing fleet traveling for the town owned vehicles. -B.4. Promoting mobility in Giarmata Town by extending bicycle routes at local level. -B.5.Local mobility by extending cycling network in order to ensure connection to neighboring villages and Timişoara Municipality. -B.6. Limiting vehicles speed to 30km/h for less CO^2 emissions, improving air quality, making cycling, walking more enjoyable and for traffic safety. Costs – 113,000 EURO / 508,500 RON Estimated CO_2 reduction target per sector in 2020 – 232 t.
	PUBLIC TRANSPORT	-B.7. Creating a traffic study in order to releave the accurate traffic data, the need of population regarding public and private transport and connection with other localities of the area and Timişoara Municipality. -B.8. Promoting the acquisition of new vehicles with low fuel consumption and emissions. -B.9. Purchase of a minibus with low fuel consumption for transport pupils and towns citizens in order to ensure the connection with the neighboring localities and Timisoara Municipality. Costs – 43,500 EURO / 195,750 RON Estimated CO_2 reduction target per sector in 2020 –166 t.
	PRIVATE AND COMMERCIAL TRANSPORT	-B.10. Promote the use of car-sharing system. -B.11. Promoting the acquisition of new vehicles with low fuel consumption and emissions. Costs – 3,500 EURO / 15,750 RON Estimated CO_2 reduction target per sector in 2020 –166 t.
	PHOTOVOLTAIC	-C.1. Implementation of a Public - Private Partnership to achieve a photovoltaic park (minimum 3 MWp, Local Council share min. 5%). -C.2. Promoting photovoltaic installations in the residential and public sectors at a rate of 2% per year with an average of 3KW. -C.3. Providing public lighting of public parks, green areas, etc. with lighting units powered by solar panels Costs – 940,000 EURO / 4,230,000 RON Estimated CO_2 reduction target per sector in 2020 –255 t.
	BIOMASS FROM SUSTAINABLE EXPLOTATION	Action: -C.4. Creation of a biomass supply center required for the production of heat in the residential sector, particularly in homes, biomass derived from sustainable explotation, controlled, or providing a list of suppliers of biomass wood boiler enabling its use in individual suppliers delivering/distributing firewood from reliable sources of sustainable forestry.

		Costs – 5,000 EURO / 22,500 RON Estimated CO_2 reduction target in 2020 –746 t.
	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Actions and targets: -D.1. Inclusion of energy efficiency, use of renewable energy and sustainable spatial development in the General Urban Plan and Local urban regulations. -D.2. Strategic urban planning approach addressing issues of mitigation and adaptation to climate changes, to ensure a high degree of preparedness planning and public infrastructure to climate risks. -D.3. Increasing the attractiveness and functionality of common territorial public domain. -D.4. Issuing building construction permits only after preparation and submission by the client of the execution documentation for the new buildings that contain in the project the calculated energy performance, according to Law. 372/2005. -D.5. Energy audits of public buildings and their energy performance certification, according to Law no.372/2005 (subject to sale, purchase/lease). Costs – 32,500 EURO / 146,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	GREEN AREAS	-D.6. Increasing green areas surfaces on the territory of the Town of Giarmata and for recreational purposes. -D.7. Planting on the public domain a number of at least 50 trees per year, out of the species resilients to drought and heat stress. Costs – 37,000 EURO / 166,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	ENERGY EFFICIENCY REQUIREMENTS / STANDARDS	Actions and targets: -E.1. Purchase of high energy efficiency class IT, electronic and electrical equipments and devices. -E.2. Purchase of paper at a rate of 25%/year, provided from recycled paper. -E.3. Including in the specifications for the Public Procurement of services, works of requirements /green criterias regarding machineries, equipments, energy saving, management module, transport and neutralization of waste, environmental management standards. Costs – 83,500 EURO / 375,750 RON Estimated CO_2 reduction target per sector in 2020 –NA
	ADVISORY SERVICES	-E.4. Acquisition of specialized advisory services to ensure the best technical solutions for implementing energy efficiency measures, use of renewable energy sources – design and execution. Costs – 30,000 EURO / 135,000 RON Estimated CO_2 reduction target per sector in 2020 –NA
	AWARENESS RAISING AND LOCAL NETWORKING	Actions and targets: -F.1. Organizing annualy Energy Day of Giarmata Town as event-organized in the frame of EUSEW - European Sustainable Energy Week -F.2. Local networking in the Local Energy Forum - a consultative body for the implementation of Sustainable Energy Action Plan and organizing at least two annual workshops to discuss issues related to the implementation of the SEAP. -F.3. Awareness of citizens about opportunities in reducing energy consumption, using best practices and technologies state-of the-art, available on the market. -F.4. Organize a campaign to raise public awareness about the possibility of treating biodegradable waste by composting and waste reduction subject to final disposal.

		Costs – 19,500 EURO / 87,750 RON Estimated CO_2 reduction target per sector in 2020 –68 t.
	TRAINING AND EDUCATION	Actions and targets: -F.5. Training an employee of the Town Hall Giarmata, responsible for monitoring energy consumption in the Town (Energy Manager). -F.6. Organization every two years for a Training for energy efficiency in buildings. -F.7. Promotion in primary and secondary school of an Environmental Education Programme. -F.8. Organizing a contest / competition on environmental responsibility, focused on reducing energy consumption, efficiency and renewable energy. Costs – 15,200 EURO / 68,400 RON Estimated CO_2 reduction target per sector in 2020 –NA
	SUSTAINABLE WASTE MANAGEMENT	Actions and targets: -G.1. Increased municipal waste recycling by 5% per year. -G.2. Reducing by 10% the amount of waste subject to final disposal. -G.3. Organizing a number of two annual campaigns for collection of waste electrical and electronic appliances WEEE. -G.4. Promoting the selective collection of biodegradable waste from households and transform into compost through aerobic composting procedure. -G.5. Increasing awareness among citizens regarding the proper management of selective waste collection by conducting one annual awareness activity. Costs – 30,500 EURO / 137,250 RON Estimated CO_2 reduction target per sector in 2020 –127 t.
	SUSTAINABLE AGRICULTURE	-H.1. Stimulate the development of energy crops - energy willow (Salix viminalis) in the Town of Giarmata and conducting a sustainable exploitation and for the village road protection - at least 1 hectares / year; Costs – 14,000 EURO / 63,000 RON Estimated CO_2 reduction target per sector in 2020 –332 t.
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Decision in the Giarmata Community was to form a working team including representatives from the various departments or services within the administration, local council representatives, representatives from local institutions, citizens and other stakeholders. The need of an external consultant support was absolutely necessary in order to pursue structured and focused work towards achieving the requirements of membership. The external support received by the local SEAP team and local administration for the SEAP development comes from the `Conurbant` - IEE project team from the Timisoara City Hall municipalities, which helped in many ways the orientation of the SEAP. The internal SEAP team composition was decided by the Mayor within the Decision no.163 issued in 30th November 2011.
	Involvement of stakeholders and citizens	Stakeholder involvement in the case of Giarmata, was understood at first as a priority, so the development working team's of SEAP had involved representatives of various local business and instutions structures. Also part of the citizens were involved during the public debate on the SEAP, were they had the opportunity to act and propose new measures according to the local comunity needs toward energy efficiency and social development of the city. Several local energy forums and workshops/working groups were held during the SEAP development, were all the participans proposed different measures and actions oriented to CO2 reduction and also adaption measures for climate change. The working groups and local energy forums will support in the future the SEAP actions

		implementation.
	Overall estimated budget	The overall estimated budget for implement all the **64 actions** is **1,725,000 EURO** / 7,762,500 RON (1 Euro=4.5 RON)
	Foreseen financing sources for the investments	Local budget, National funds and Programmes, EU Structural funds, Energy Efficiency Fund, ESCOs (EPC), public private partnerships (PPP). A major part of the budget allocate for the SEAP actions implementation will come from local administration budget, and for each measures the budget will be agreed and approved in the Local Council prior to implementation, according the internal legal requirements. EU project proposals will be set up for different feasible actions according to the criterias defined in each action of the call.
	Planned measures for monitoring and follow up	In the first year of the implementation period, monitoring instruments will be designed in order to assure the control of measures implementation. Specific indicators will be set up for each measures, in order to have a clear picture of the outcomes year by year. After the first two year of implementation an Evaluation Report will be establish in order to report the implementation status of the SEAP, consisting in performance evaluation results of the short measures proposed to be implemented and also will contain options for improvement.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Planting on the public domain a number of at least 50 trees per year, out of the species resilients to drought and heat stress – *Robinia sp.;* 2. Awareness of citizens about opportunities in reducing energy consumption, using best practices and technologies state-of the-art, available on the market The actions were approved by Local Council Giarmata Decision no. 113 issued in 27th November 2013.	
Web address:	http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&lg=ro http://www.dmmt.ro/modules.php?module=news&id=313&lg=ro http:// http://www.primariagiarmata.ro http://www.eumayors.eu/about/signatories_en.html?city_id=3723&seap	
Contact details:	**TOWN HALL GIARMATA, Timiş County, postal code 307210, Romania** **Virgil BUNESCU, Mayor – +40 256 369 101,** primaria.giarmata@yahoo.com Ionel CARABULIA - Deputy Mayor, – +40 256 369 101, primaria.giarmata@yahoo.com	

4. GIROC:

Conurbation:	***TIMISOARA CONURBATION***
Conurbation Town:	**GIROC Town**
Population:	Number of population in 2013: **8,795** (at 1st July)
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption 30,829 MWh / CO_2 emissions: 10,326 t**
Details related to the public debate on SEAP	The open public debate to approve the SEAP was held at Town Hall of Giroc in **20.11.2013.**
Approval of SEAP by local authority	The SEAP was approved by the **Local Council Decision nr.149 issued in 29.11.2013** Timisoara Municipality – Environmental Directory webpagewww.dmmt.ro/section dedicated to CONURBANT Project http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&lg=ro http://www.dmmt.ro/modules.php?module=news&id=316&lg=ro
Overall CO_2 emission reduction target by 2020	**22 % CO_2 emission reduction target by 2020** **Per capita reduction**

Long-term vision of the local authority	Local Vision – „Development and strengthening of a strong economic zones, stable and diversified, able to ensure prosperity and the improvement of the village” The vision of Giroc Town Hall is to assure energetic security both for public and private sector, with the clear orientation toward sustainable development of the town by creating a welbeing environment for the whole citizens. The priorities in setting their targets are to degrease the overall cost for energy consumption in town, to mittigate the public admininstration effort to sustain the local institutions ressource, by setting active measures in the building sector which consist mainly in insulation of all buildings and sustainable heating systems, encouraging sustainable consumption and production, implementation of renewable energy sources (photovoltaic park creation and also a potential future energy production from biomass private site), and improving energy efficient in public lightning system and public transport system.	
Objectives, targets:	The main objectives of the SEAP are to enhance the quality of life and energy comfort at the least cost to the citizens of the town by means of decentralized renewable energy supply/sustainable heating with a parallel implementation of energy efficiency measures. Giroc Town developed a policy of energy management at the local level, which covers energy consumption in municipal and residential buildings, street lighting, transport, town planning, education/awareness raising, training, waste management, green areas, and agriculture, covering a number of 38 actions. Objective 1. Reduction of energy consumption and $C0_2$ emissions in the private houses and public owened buildings; Objective 2. Reduced fuel consumption and $C0_2$ emissions and mobility; Objective 3. Spatial planning, green public procurement and local networking; Objective 4. Encouraging the use of renewable energy sources. Objective 5: Education, training and raising awarness of citizens; Objective 6: Sustainable waste management and agriculture. Industrial sector has not been taken into account for the emission analysis, being outside of the competency and local public authority influence area. Therefore, no measures and actions have been committed to this sector.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES And TERTIATY SECTOR	Actions and targets: A1.Extension column of hot water and heat of waste energy recovery station - decrease by 90% of GES emission A2.Solutions for buildings in the headings - distribution utilities A3.CASA VERDE Implementation Program; providing support for the preparation of the necessary documentation to access funds A4.Implementation of cameras, expanding the current network A5.Communication by opinion makers A6.Awareness officials to reduce unnecessary power consumption, creation of a good practice manual and distrubution toward all stakeholders A7.Promoting energy production based on renewable energy to reduce the negative impact on the environment. Cost – 24,000 EURO/ 108,000 RON Estimated CO_2 reduction target per sector in 2020 – 7.1 t.
	RESIDENTIAL BUILDINGS	Actions and targets: A1.Reduced fees for people who implemented RES - Renewable energy system in residential buildings A2.Tax exemption for citizens who insulate buildings A3.Implementation of solar panels: solar panels recommendation 2-3 Kw. A4 Local Fairs energy for the population in order to public awareness of the existence of green energy A5. Public awareness on the rational and efficient use of primary energy resources

		Costs – 25,000 EURO / 112,500 RON Estimated CO_2 reduction target per sector in 2020 – NA
	PUBLIC LIGHTNING	Actions and targets: A1.Use efficient light bulbs energy , smart use of light sources. Implementation of occupancy sensors in parks in order to reduce energy consumption at night. A2.PPP - public lighting effectively with a 70% reduction of energy consumption. A3.Dimming of street lighting at night, and seasons. A4.Use efficient light bulbs energy , with sensor / solar power in not frecvently used areas in order to reduce energy consumption at night. Costs – 175,000 EURO / 787,500 RON Estimated CO_2 reduction target per sector in 2020 – 76 t.
Other sectors or field of actions covered by SEAP	TRANSPORT	Actions and targets: A1.Purchase of two hybrid cars (electric - fuel) for urban transport, field verification of the technical team Hall. A2.Awareness of citizens on the common use of private motor cars (car-sharing). A3.Proposal of HCL to purchase four new buses EURO 5 EEW for local public transport. A4.Scheduling a timetable for public transport so as to allow a greater number of passengers to benefit from movements in Timisoara with local buses. Questioning citizens about the best times. A5.Encouraging public transport by providing facilities for the elderly and children. Implementation of an attractive public awareness and information systems of citizens in public transport. A6.Establish bus stops nearby hypermarkets . A7.Making bike lanes / sidewalks approx. 10 km. A8.Acquisition of new buses, replacing the existing fleet of local transport operator in order to decrease CO2 emissions and therefore pollution. A9.Promotion of cycling in the action "circulate with bicycle" in the event " DAY ENERGY in Giroc " in 2014 and 2015. Costs – 1,563,000 EURO / 7,033,500 RON Estimated CO_2 reduction target per sector in 2020 – 226 t.
	PRIVATE AND COMMERCIAL TRANSPORT	Actions and targets: A1.Regulation of heavy traffic on DJ 595 (heavy traffic reduction below 2000 cars / h). A2.Imported vehicles with high emissions, verification number in their database and achieving awareness on buying efficient vehicles. Costs – 3,000 EURO / 13,500. RON Estimated CO_2 reduction target per sector in 2020 – NA
	PHOTOVOLTAIC	Action and target: A1.Making a photovoltaic park.of 2 MWh, from a rpivate company, with private funds Costs – 8,000,000 EURO / 36,000,000. RON Estimated CO_2 reduction target per sector in 2020 – 1,622 t.
	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Action and target: A1.Paving of new residential areas in order to decrease particulate dust in the air. Costs – 450000 EURO / 2025000 RON Estimated CO_2 reduction target per sector in 2020 – NA
	GREEN AREAS	Action and target: A1.Planting trees resistant to thermal and water stress in new parks landscaped, to provide shading these parks. At least 5 trees in an

		area of 500 mp. Costs –11,000 EURO / 495,000. RON Estimated CO_2 reduction target per sector in 2020 – NA.
	ENERGY EFFICIENCY REQUIREMENTS / STANDARDS RENEWABLE ENERGY REQUIREMENTS / STANDARDS	Action and target: A1.Increasing the capacity of local government through the implementation of ISO 9001 and ISO 14001 Costs – 11,000 EURO / 495,000 approx. RON Estimated CO_2 reduction target per sector in 2020 – NA
	AWARENESS RAISING AND LOCAL NETWORKING	Actions and targets: A1.Establishment annual " Energy Day Giroc ", involving all interested parties in the event. Ansually organization of Energy Day in the Europe Energy week, choosing different topic to address in order to address energy efficiency topic A2.Exchanging experience with other cities the size of Giroc of the Covenant Working Group Mayors on good practice for local energy efficiency, transfer of feasible projects. At least one foreign visit in the transfer of information and know-how, technology possibly 2 years. A3.Creating a best practice guide for local environmental protection and energy efficiency, to be distributed to both citizens and public institutions (schools, kindergartens, etc..). Its publication in approx. 2,500 copies, and distribute them. A4.Annual campaigns of planting trees at local level by involving school and kindergarten. Creating a curtain of trees in short sequenced steps for 3 years, so that in the year 2017 to be a curtain to protect the community and therefore citizens. Make a curtain of trees on approx. 3 ha. Making the curtains in partnership with the National Company of Motorways and National Roads - CNADNR, on the future Timisoara belts which will cross the bordering area Girocului. Costs – 47,000 EURO / 211,500 RON Estimated CO_2 reduction target per sector in 2020 – 333 t.
	SUSTAINABLE WASTE MANAGEMENT	Actions and targets: A1.Awareness of citizens for the selection of waste at generation source, in order to increase the % of waste recycled from the municipality - one awareness campaign per year. A2.Establishment of two points of selective waste collection. A3.Study the quantity and quality of plant waste generated in the towns, and studying the feasibility of implementing a centralized or individual composting systems. Costs – 6,000 EURO / 27,000. RON Estimated CO_2 reduction target per sector in 2020 – NA.
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Decision in Giroc Community was to form a working team including representatives from the various departments and services within the administration, local council representatives, representatives from local institutions, citizens and other stakeholders. The need of an external consultant support was absolutely necessary in order to pursue structured and focused work towards achieving the requirements of membership. The external support received by the local SEAP team and local administration for the SEAP development comes from the `Conurbant` - IEE project team from the Timisoara City Hall municipalities, which helped in many ways the orientation of the SEAP. The internal SEAP team composition was proposed by the Mayor and decided by the Local Council: Deputy Mayor, Town Secretary, Public Administrator, Environment Protection

		Responsible, Towns Architect, Projects Responsible and two local concillors. The team is coordinate by Mayor.
	Involvement of stakeholders and citizens	Stakeholder involvement in the case of Giroc Community was understood at first as a priority, so the development working team's of SEAP had involved representatives of various local business and instutions structures. Also part of the citizens were involved during the public debate on the SEAP, were they had the opportunity to act and propose new measures according to the local comunity needs toward energy efficiency and social development of the city. Several local energy forums and workshops/working groups were held during the SEAP development, were all the participans proposed different measures and actions oriented to CO2 reduction and also adaption measures for climate change. The working groups and local energy forums will support in the future the SEAP actions implementation.
	Overall estimated budget	**The overall estimated budget for implement all the 38 actions** is **10,315,000 EURO**, 46,417,500 RON (1 Euro=4.5 RON)
	Foreseen financing sources for the investments	The bigest investment for the PV park will be assured from private funds about 8,000,000 Euro, and 2,315,000 Euro will be assure from Local budget, National funds and Programmes, EU Structural funds, Energy Efficiency Fund, ESCOs (EPC) or public private partnerships (PPP). The allocation of local budget for the SEAP actions implementation will come from local administration priorly approved budget, and for each measures the budget will be agreed and approved in the Local Council prior to implementation, according the internal legal requirements. EU project proposals will be set up for different feasible actions according to the criterias defined in each action of the call.
	Planned measures for monitoring and follow up	In the first year of the implementation period, monitoring instruments will be designed in order to assure the control of measures implementation. Specific indicators will be set up for each measures, in order to have a clear picture of the outcomes year by year. After the first two year of implementation an Evaluation Report will be establish in order to report the implementation status of the SEAP, consisting in performance evaluation results of the short measures proposed to be implemented and also will contain options for improvement.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Acquisition of new buses and replace the existing fleet of local transport operator, in order to reduce CO2 emissions and implicitly pollution in Giroc; 2. Asphalting works in the new residential areas in order to decrease the concentration of airborne dust; 3. Development of new sidewalks and bike lanes for a length of about 10 km.; 4. Promotion of cycling in the action “Ride my bike" in the frame of "Energy Day in Giroc"; The actions were approved by Giroc Local Council Decision no.149 issued in 29th November 2013.	
Web address: *(Direct link to the webpage dedicated to the SEAP)*	http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&lg=ro http://www.dmmt.ro/modules.php?module=news&id=316&lg=ro http://www.giroc.ro http://www.giroc.ro/portal/timis/giroc/stiri.nsf/vwMediaGet/anunturi-raport-strategic-nt71a6/$FILE/Raport%20PAED_GIROC_2013.pdf	
Contact details:	**GIROC TOWN HALL, Timiş County, Romania** **Iosif – Ionel TOMA, Mayor** – +40 256 395648, primariagiroc@yahoo.com	

5. PECIU NOU:

Conurbation:	***TIMISOARA CONURBATION***	
Conurbation Town:	**PECIU NOU Town**	
Population:	Number of population in 2013: **5,158** (at 1st July)	
BEI year:	**2008**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption 42,687 MWh / CO_2 emissions: 16,028 t**	
Details related to the public debate on SEAP	The open public debate on SEAP was held at Town Hall of Peciu Nou in **15.07.2013.**	
Approval of SEAP by local authority	The SEAP was approved by the **Peciu Nou Local Council Decision nr.125 issued in 24.07.2013** Timisoara Municipality – Environmental Directory webpage www.dmmt.ro/section dedicated to CONURBANT Project http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=864 http://www.dmmt.ro/modules.php?module=news&id=315&lg=ro	
Overall CO_2 emission reduction target by 2020	**20 % CO_2 emission reduction target by 2020** **Per capita reduction**	
Long-term vision of the local authority	The vision of Peciu Nou Town public administration is to assure energetic security both for public and private sector, with the clear orientation toward sustainable development of the town by creating a welbeing environment for the whole citizens. The priorities in setting their targets are to degrease the overall cost for energy consumption in town, to mittigate the public admininstration effort to sustain the local institutions ressource, by setting active measures in the building sector which consist mainly in insulation of all buildings and sustainable heating systems, encouraging sustainable consumption and production, implementation of renewable energy sources, and also creating a structure to provide biomass from sustainable forestration.	
Objectives, targets:	The main objectives of the SEAP are to enhance the quality of life and energy comfort at the least cost to the citizens of the town by means of decentralized renewable energy supply/sustainable heating with a parallel implementation of energy efficiency measures. Peciu Nou Town developed a policy of energy management at the local level, which covers energy consumption in municipal and residential buildings, street lighting, transport, town planning, education/awareness raising, training, waste management, green areas, and agriculture, covering a number of 71 actions. Objective 1. Reduction of energy consumption and $C0_2$ emissions in the private houses and public owened buildings; Objective 2. Reduced fuel consumption and $C0_2$ emissions and mobility; Objective 3. Spatial planning, green public procurement and local networking; Objective 4. Encouraging the use of renewable energy sources. Objective 5: Sustainable waste management and agriculture. Objective 6: Education, training and raising awarness of citizens; Objective 7: Development of town infrastructure: water supply, serarage, natural gas, communal roads and facilities; Industrial sector has not been taken into account for the emission analysis, being outside of the competency and local public authority influence area. Therefore, no measures and actions have been committed to this sector.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/	Actions and targets: -A.1. Carrying out energy audits for public buildings owned by local authority and their energetic labeling. -A.2. Completion of technical and economic documentation in order to accomplish thermal rehabilitation and energy efficiency projects in public buildings, including the use of renewable energy source and smart metering systems. -A.3. Submission of applications within the National Programme to increase energy efficiency and use of RES in the public sector for 5 local public buildings. -A.4. Implementation of a system of energy management in

	FACILITIES AND TERTIARY SECTOR	buildings owned by the local authority. -A.5. Thermal rehabilitation of 5 public buildings (college, schools and kindergardens) -A.6. Thermal insulation and energetic efficiency of a 3 buildings from the tertiary sector (offices/headquarters, medical institution). -A.7. Installation of solar collectors for hot water production to the sports centers -A.8. Upgrading indoor lighting using energy efficient equipments in town hall building -A.9. Energy efficiency and ensuring the sustainability of energy using photovoltaic panels for 4 public buildings -A.10. Concluding a number of 2 energy performance contracts - EPC for two public buildings - in order to transform them in energy performant buildings. -A.11. Installing energy efficient centrals/stoves using biomass in 2 public buildings -A.12. Using locally produced sustainable sources of biomass (energy willow plantation) for heating certain public buildings Costs – 171,500 EURO / 771,750 RON Estimated CO_2 reduction target per sector in 2020 – 34 t.
	RESIDENTIAL BUILDINGS	Actions and targets: -A.13. Complete thermal insulation of private buildings at a rate of 5% per year from the existing noninsulated houses from town. -A.14. Promoting the connection to the natural gas network of the houses from Peciu Nou, at a rate of 20 houses/year, for using natural gas for heating -A.15. Promote and support the widening of natural gas network in Diniaş and Sînmartinul Sârbesc, in order to provide household heating on gas -A.16. Promoting through information and technical support, the possibility of implementing the "GREEN HOUSE" National Programme for housing and other national programmes aimed at using renewable energy sources, through technical and informational support offered to the citizens -A.17. Promoting upgrading the households /residential heating systems, by replacing the old classic stoves with new, energy efficient central heating systems/stoves, using locally produced biomass -A.18. Promoting the use of locally produced sustainable sources of biomass (energy willow plantation) for heating of private buildings in the residential sector -A.19. Promoting the installation of at least one solar collector for heating hot water in residential buildings, at a rate of 2%/year, compared to the total numbers of households with south-facing roofs. -A.20. Modernization of housing individual heating systems by replacing the classical biomass stoves with new energy efficient centrals/stoves -A.21. Promoting the installation of thermostats in residential buildings using natural gas as a heating source. -A.22. Promoting a self-monitoring tool for household energy consumption. Costs – 513,500 EURO / 2,310,750 RON Estimated CO_2 reduction target per sector in 2020 – 214 t.
	PUBLIC LIGHTNING	Actions and targets: -A.23. Conducting an energy audit of public lighting. -A.24. Modernization of architectural and decorative lighting of buildings based on systems with low power consumption (LED) -A.25. Installation of independent energy lighting systems (using

		renewable energy - PV) in residential areas. -A.26. Installation of motion sensors in public streets lighting units in the less traveled streets of the peripheral area of Town -A.27. Rehabilitation and modernization of public lighting in the town center and on the town's main roads by annual replacement of 10% of existing illumination fixtures with energy efficient ones/LED Lightning Technology Costs – 1,014,300 EURO / 4,564,350 RON Estimated CO_2 reduction target per sector in 2020 – 1,828 t.
	MUNICIPAL FLEET	Actions and targets: -B.1. Promoting mobility by acquisition of a number of 10 bicycles, 2 bicycles / year for civil servants in the Town Hall and for local police officials, with metering devices for recording the traveled distance -B.2. Reducing emissions from private transport by 2% compared to 2008 - by promoting cycling and walking -B.3. Rationalizing fleet traveling for the town owned vehicles -B.4. Promoting mobility in Peciu Nou Town by extending bicycle routes at local level -B.5. Local mobility by extending cycling network in order to ensure connection to neighboring villages and Timişoara Municipality -B.6. Limiting vehicles speed to 30km/h for less CO^2 emissions, improving air quality, making cycling, walking more enjoyable and for traffic safety. Costs – 287,000 EURO / 1,291,500 RON Estimated CO_2 reduction target per sector in 2020 – 60 t.
	PUBLIC TRANSPORT	Actions and targets: -B.7. Creating a traffic study in order to reveal the accurate traffic data, the need of population regarding public and private transport and connection with other localities of the area and Timişoara Municipality -B.8. Promoting the acquisition of new vehicles with low fuel consumption and emissions -B.9. Purchase of a minibus with low fuel consumption for transport pupils and towns citizens in order to ensure the connection with the neighboring localities and Timisoara Municipality Costs – 68,500 EURO / 308,250 RON Estimated CO_2 reduction target per sector in 2020 –16 t.
	PRIVATE AND COMMERCIAL TRANSPORT	Actions and targets: -B.10. Promote the use of car-sharing system -B.11. Promoting the acquisition of new vehicles with low fuel consumption and emissions Costs – 7,000 EURO / 31,500 RON Estimated CO_2 reduction target per sector in 2020 –22 t.
	PHOTOVOLTAIC	Actions and targets: -C.1. Implementation of a Public - Private Partnership to achieve a photovoltaic park (minimum 3 MWp, Local Council share min. 5%) -C.2. Promoting photovoltaic installations in the residential and public sectors at a rate of 2% per year with an average of 3KW -C.3. Providing public lighting of public parks, green areas, etc. with lighting units powered by solar panels Estimated costs – 527,000 EURO / 2,371,500 RON Estimated CO_2 reduction target per sector in 2020 – 902 t.
	BIOMASS FROM SUSTAINABLE EXPLOTATION	- C.5. Creation of a biomass supply center required for the production of heat in the residential sector, particularly in homes, biomass derived from sustainable explotation, controlled, or providing a list of suppliers of biomass wood boiler enabling its use in individual suppliers delivering/distributing firewood from reliable

		sources of sustainable forestry Estimated costs – 15,000 EURO / 67,500 RON Estimated CO_2 reduction target per sector in 2020 –NA.
	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Actions and targets: -D.1. Inclusion of energy efficiency, use of renewable energy and sustainable spatial development in the General Urban Plan and Local urban regulations -D.2. Strategic urban planning approach addressing issues of mitigation and adaptation to climate changes, to ensure a high degree of preparedness planning and public infrastructure to climate risks -D.3. Increasing the attractiveness and functionality of common territorial public domain -D.4. Issuing building construction permits only after preparation and submission by the client of the execution documentation for the new buildings that contain in the project the calculated energy performance, according to Law no.372/2005. -D.5. Energy audits of public buildings and their energy performance certification, according to Law no.372/2005 (subject to sale, purchase/lease) Estimated costs – 30,000 EURO / 135,000 RON Estimated CO_2 reduction target per sector in 2020 –NA.
	GREEN AREAS	Actions and targets: -D.6. Increasing green areas surfaces on the territory of the Town of Peciu Nou and for recreational purposes -D.7. Afforestation an area of 16 hectares of degraded lands with tree species resistent to the climatic and local pedological characteristics and the sustainable management of forestry vegetation during exploitation as a tool for athmospheric carbon capture and storage and adaptation to climate change -D.8. Planting on the public domain a number of at least 50 trees per year, out of the species resilients to drought and heat stress -D.9. The refurbishment and increasing the attractiveness of the existing green spaces in the community (for the 3 villages) by removing sick, old trees and planting of trees and shrubs resistant to thermal stress as well as construction of a water fountain as a tool for adaptation to climate change - improving local environmental conditions Estimated costs – 107,000 EURO / 481,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	ENERGY EFFICIENCY REQUIREMENTS /STANDARDS	Actions and targets: -E.1. Purchase of high energy efficiency class IT, electronic and electrical equipments and devices -E.2. Purchase of paper at a rate of 25%/year, provided from recycled paper -E.3. Including in the specifications for the Public Procurement of services, works of requirements /green criteria's regarding machineries, equipments, energy saving, management module, transport and neutralization of waste, environmental management standards -E.4. Acquisition of specialized advisory services to ensure the best technical solutions for implementing energy efficiency measures, use of renewable energy sources – design and execution; Estimated costs – 61,500 EURO / 276,750 RON Estimated CO_2 reduction target per sector in 2020 –NA
	AWARENESS RAISING AND LOCAL	Actions and targets: -F.1. Organizing annually Energy Day of Peciu Nou Town as event-organized in the frame of EUSEW - European Sustainable Energy

	NETWORKING	Week -F.2. Local networking in the Local Energy Forum - a consultative body for the implementation of Sustainable Energy Action Plan and organizing at least two annual workshops to discuss issues related to the implementation of the SEAP -F.3. Awareness of citizens about opportunities in reducing energy consumption, using best practices and technologies state-of the-art, available on the market -F.4. Organize a campaign to raise public awareness about the possibility of treating biodegradable waste by composting and waste reduction subject to final disposal Estimated costs – 17,500 EURO / 78,750 RON Estimated CO_2 reduction target per sector in 2020 –NA
	TRAINING AND EDUCATION	Actions and targets: -F.5. Training two employees of the Town Hall Peciu Nou, responsible for monitoring energy consumption in the Town (Energy Manager) -F.6. Organization every two years for a Training for energy efficiency in buildings -F.7. Promotion in primary and secondary school of an Environmental Education Programme -F.8. Organizing a contest / competition on environmental responsibility, focused on reducing energy consumption, efficiency and renewable energy Actions and targets: Estimated costs – 15,200 EURO / 68,400 RON Estimated CO_2 reduction target per sector in 2020 –NA
	SUSTAINABLE WASTE MANAGEMENT	-G.1. Increased municipal waste recycling by 3% per year -G.2. Reducing by 3% the amount of waste subject to final disposal -G.3. Organizing a number of two annual campaigns for collection of waste electrical and electronic appliances WEEE -G.4. Promoting the selective collection of biodegradable waste from households and transform into compost through aerobic composting procedure (composting boxes in households) -G.5. Increasing awareness among citizens regarding the proper management of selective waste collection by conducting one annual awareness activity -G.6. Purchase a Compacting press vehicle to minimize the volume of waste collected, for an efficient local waste collection service Estimated costs 142,000 EURO / 639,000 RON Estimated CO_2 reduction target per sector in 2020 – NA
	SUSTAINABLE AGRICULTURE	-H.1. Stimulate the development of energy crops - energy willow (Salix viminalis) in the Town of Peciu Nou and conducting a sustainable exploitation and for the village road protection - at least 2 hectare / year and using as sustainable biomass; Estimated costs – 28,000 EURO / 126,000 RON Estimated CO_2 reduction target per sector in 2020 – 0 t. – the calculation for reduction is quantified for the measure C5.
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Decision in the Peciu Nou Community was to form a working team including representatives from the departments or services within the administration, local council representatives, representatives from local institutions, citizens and other stakeholders. The need of an external consultant support was absolutely necessary in order to pursue structured and focused work towards achieving the requirements of membership. The external support received by the local SEAP team and local administration for the SEAP development comes from the `Conurbant` - IEE project team from the Timisoara City Hall municipalities, which helped in many ways the orientation of the SEAP. The internal SEAP team composition was decided by

		the Mayor within the Decision no.27 issued in 18th February 2013. In Peciu Nou Town a task force team is involved in SEAP implementation and monitoring process, coordinated by Myor and formed by Deputy Mayor, Public Procurement Responsible, Public Relation Responsible, Accountant and two local counsellors.
	Involvement of stakeholders and citizens	Stakeholder involvement in the case of Peciu Nou, was understood at first as a priority, so the development working team's of SEAP had involved representatives of various local business and instutions structures. Also part of the citizens were involved during the public debate on the SEAP, were they had the opportunity to act and propose new measures according to the local comunity needs toward energy efficiency and social development of the city. Several local energy forums and workshops/working groups were held during the SEAP development, were all the participans proposed different measures and actions oriented to CO2 reduction and also adaption measures for climate change. The working groups and local energy forums will support in the future the SEAP actions implementation.
	Overall estimated budget	The overall estimated budget for implement all the **71 actions** is **3,000,000 EURO**, 13,500,000 RON (1 Euro=4.5 RON)
	Foreseen financing sources for the investments	Local budget, National funds and Programmes, EU Structural funds, Energy Efficiency Fund, ESCOs (EPC), public private partnerships (PPP). A major part of the budget allocate for the SEAP actions implementation will come from local administration budget, and for each measures the budget will be agreed and approved in the Local Council prior to implementation, according the internal legal requirements. EU project proposals will be set up for different feasible actions according to the criterias defined in each action of the call.
	Planned measures for monitoring and follow up	In the first year of the implementation period, monitoring instruments will be designed in order to assure the control of measures implementation. Specific indicators will be set up for each measures, in order to have a clear picture of the outcomes year by year. After the first two year of implementation an Evaluation Report will be establish in order to report the implementation status of the SEAP, consisting in performance evaluation results of the short measures proposed to be implemented and also will contain options for improvement.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Purchasing of a car with low fuel consumption; 2. Purchase of high energy efficiency class IT, electronic and electrical equipments and devices; 3. Carrying out energy audits for public buildings owned by local authority and their energetic labeling. 4. Promotion in primary and secondary school of an Environmental Education Programme The actions were approved by Peciu Nou Local Council Decision no.125 issued in 24th July 2013.	
Web address:	http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=863 http://www.dmmt.ro/modules.php?module=news&lg=ro&d=2013-8-08 http://www.primariapeciunou.ro http://www.eumayors.eu/about/signatories_en.html?city_id=3738&seap	
Contact details:	**TOWN HALL PECIU NOU, Timiş County, Str.Principală no.178, Romania** **Ioan FĂRCĂLĂU, Mayor** – +40 256 414500, primaria_peciunou@yahoo.com Ioan URDA - Deputy Mayor, – +40 256 414500, primaria_peciunou@yahoo.com	

6. REMETEA MARE:

Conurbation:	**TIMISOARA CONURBATION**	
Conurbation Town:	**REMETEA MARE Town**	
Population:	Number of population in 2013: **2,295** (at 1st July)	
BEI year:	**2008**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption 23,150 MWh / CO_2 emissions: 8,417 t**	
Details related to the public debate on SEAP	The open public debate on SEAP was held at Town Hall of Remetea Mare in **15.07.2013.**	
Approval of SEAP by local authority	The SEAP was approved by **Remetea Mare Local Council Decision nr.21 issued in 12.08.2013** Timisoara Municipality – Environmental Directory webpagewww.dmmt.ro/section dedicated to CONURBANT Project http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=860 http://www.dmmt.ro/modules.php?module=news&lg=ro&d=2013-8-12	
Overall CO_2 emission reduction target by 2020	**20 % CO_2 emission reduction target by 2020** **Per capita reduction**	
Long-term vision of the local authority	The vision of Remetea Mare Town Hall is to assure energetic security both for public and private sector, with the clear orientation toward sustainable development of the town by creating a welbeing environment for the whole citizens. The priorities in setting their targets are to degrease the overall cost for energy consumption in town, to mittigate the public admininstration effort to sustain the local institutions ressource, by setting active measures in the building sector which consist mainly in insulation of all buildings and sustainable heating systems, encouraging sustainable consumption and production, implementation of renewable energy sources, and also creating a structure to provide biomass from sustainable forestration.	
Objectives, targets:	The main objectives of the SEAP are to enhance the quality of life and energy comfort at the least cost to the citizens of the town by means of decentralized renewable energy supply/sustainable heating with a parallel implementation of energy efficiency measures. Remetea Mare Town developed a policy of energy management at the local level, which covers energy consumption in municipal and residential buildings, street lighting, transport, town planning, education/awareness raising, training, waste management, green areas, and agriculture, covering a number of 43 actions. Objective 1. Reduction of energy consumption and $C0_2$ emissions in the private houses and public owened buildings; Objective 2. Reduced fuel consumption and $C0_2$ emissions and mobility; Objective 3. Spatial planning, green public procurement and local networking; Objective 4. Encouraging the use of renewable energy sources. Objective 5: Education, training and raising awarness of citizens; Objective 6: Sustainable waste management and agriculture. Industrial sector has not been taken into account for the emission analysis, being outside of the competency and local public authority influence area. Therefore, no measures and actions have been committed to this sector.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES And TERTIATY SECTOR	-A.1. Carrying out energy audits for public buildings owned by local authority and their energetic labelling. -A.2. Thermal rheabilitation of public buildings (2014-2020) and energy efifciency projects implementation -A.3. Upgrading interior lighting using energy efficient equipments/ bulbs in buildings of the schools in the town. -A.4. Thermal insulation of at least 5 buildings from tertiary sector. Costs – 93,500 EURO / approx. 420,750 RON Estimated CO_2 reduction target per sector in 2020 – 17,6 t.
	RESIDENTIAL BUILDINGS	-A.4. Thermal insulation of at least 5 buildings from tertiary sector. -A.5. Thermal insulation of private buildings. -A.6. Promoting installation of thermostats in residential buildings

		that use natural gas as a heating source. -A.7. Promoting, through information and technical support, the possibility of implementing the "Green House" National Programme for housing and other national programmes aimed at using renewable energy sources. -A.8. Promotion for upgrading the heating systems of individual homes by replacing classical stoves with biomass heating systems. -A.9. Promoting the installation of at least one solar collector for hot water heating in residential buildings, at a rate of 5% / year compared to the total number of households with south-facing roofs. -A.10. Promoting a self-monitoring tool for household energy consumption. Costs – 711,000 EURO / approx.3,19,500 RON Estimated CO_2 reduction target per sector in 2020 – 326 t.
	PUBLIC LIGHTNING	-A.11. Conducting an energy audit of public lighting. -A.12. Rehabilitation and modernization of public lighting in the town center and on the town's main roads by annual replacement of 10% of existing illumination fixtures with energy efficient ones. Costs – 112,000 EURO / approx.504,000 RON Estimated CO_2 reduction target per sector in 2020 – 30 t.
Other sectors or field of actions covered by SEAP	TRANSPORT	-B.1. Increasing urban mobility by extending the network for bicycle traffic in the City Hall of Remetea Mare. Costs – 20,000 EURO / approx.90,000 RON Estimated CO_2 reduction target per sector in 2020 – 7 t.
	PRIVATE AND COMMERCIAL TRANSPORT	-B.2. Promote the acquisition of new vehicles, with low fuel consumption and emissions engines.No Costs associated with these measures; Costs – 20,000 EURO / approx.90,000 RON Estimated CO_2 reduction target per sector in 2020 – 7 t.
	PHOTOVOLTAIC	- C.1. Promoting public - private partnership to achieve a photovoltaic park (with minimun 1 MWp, involving in min.5% the Local Council) - C.2. Ensuring public lighting of parks by public lighting units powered by solar panels. - C.3. Promoting photovoltaic instalation in the residential and public sector at a rate of 2% pe year with an average of 3KW Estimated costs – 118,000 EURO / approx. 531,000 RON Estimated CO_2 reduction target per sector in 2020 –56 t.
	BIOMASS FROM SUSTAINABLE EXPLOTATION	-D.1.Creating a center for providing the necessary biomass for the production of heat in the residential sector, especially for houses, biomass coming from controlled, sustainable, sylvan exploitations. Or ensuring the listing of biomass providers, wood material favorable for its usage in individual heating stations, providers who deliver/distribute material, firewood from safe sources for sustainable sylvan exploitation. Estimated costs – 20,000 EURO / aprox. 90,000 RON Estimated CO_2 reduction target per sector in 2020 –620 t.
	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Actions and targets: -E.1. Including aspects of energy efficiency, renewable energy sources and sustainable spatial development in the General Urban Plan and in local planning regulations. -E.2. Use of strategic urban planning approach by addressing issues of mitigation and adaptation to climate change, to ensure a high level of public infrastructure planning and preparation for climate risks. -E.3. Increasing the attractiveness of urban and territorial public domain functionality.

		Estimated costs – 25,000 EURO / aprox. 112,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	STANDARDS FOR REFURBISMENT AND NEW DEVELOPMENT	Actions and targets: -E.4. Issuing building licences only after preparation and submission by the client of the execution documentation for the new buildings that contain in the project the calculated energy performance, according to Law. 372/2005. -E.5. Issuing energy performance certificates for buildings subject to sale / purchase / lease, according to Law nr.372/2005. Estimated costs – no cost associate with these actions. Estimated CO_2 reduction target per sector in 2020 –NA
	GREEN AREAS	Actions and targets: -E.6. Planting on the public domain a number of 50 trees per year, out of the species resilients to drought and heat stress. Estimated costs – 25,000 EURO / aprox. 112,500 RON Estimated CO_2 reduction target per sector in 2020 –180t.
	ENERGY EFFICIENCY REQUIREMENTS / STANDARDS RENEWABLE ENERGY REQUIREMENTS / STANDARDS	Actions and targets: -F.1. Purchasing IT, electronic and electrical equipment in the high energy efficiency class. -F.2. Acquisition of at least 75% of the paper used for writing and purchased from the local budget from recycled paper. -F.3. Including requirements / green criteria regarding machinery, equipment, energy saving, management strategy, transport and neutralization of waste, environmental protection in the specifications for the procurement of services and works. Estimated costs – 23,500 EURO / aprox. 105,750 RON Estimated CO_2 reduction target per sector in 2020 –NA
	ADVISORY SERVICES	-G.1. Acquisition of specialized advisory services to ensure the best technical solutions for implementing energy efficiency measures, use of renewable energy sources – design and execution; Estimated costs – 15,000 EURO / approx. 67,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	AWARENESS RAISING AND LOCAL NETWORKING	Actions and targets: -G.2. Annual organizing of Energy Day in the Town Hall of Remetea Mare, as an event circumscribed to European Sustainable Energy Week. -G.3. Establishment of Local Energy Forum - a consultative body for the implementation of Sustainable Energy Action Plan and organizing at least two annual workshops to discuss issues related to the implementation of the SEAP. -G.4. Raising public awareness about opportunities to reduce energy consumption by using best practices and technologies available on the market. -G.5. Organizing a public awareness campaign about the treatment of biodegradable waste by composting. Estimated costs – 10,500 EURO / approx. 47,250 RON Estimated CO_2 reduction target per sector in 2020 –1 t.
	TRAINING AND EDUCATION	Actions and targets: -G.6. Training an energy manager in Remetea Mare Town Hall, responsible for monitoring energy consumption at town level. -G.7. Organizing a Training on energy efficiency in buildings once every two years. -G.8. Promotion of a programme of environmental education in primary and secondary schools and secondary schools. -G.9. Organizing a school contest / competition on themes of responsibility for the environment, focused on energy saving, energetic efficiency and renewable energy sources. Estimated costs – 7,600 EURO / 34,200 RON

		Estimated CO_2 reduction target per sector in 2020 –NA.
	SUSTAINABLE WASTE MANAGEMENT	Actions and targets: -H.1. Increasing recycling of municipal waste by 5% per year -H.2. Reduce by 20% the amount of waste subject to final disposal. -H.3. Organization of a number of 2 annual campaigns of collecting waste electrical, electronic, and household appliances WEEE. -H.4. Promoting the selective collection of biodegradable wastes from households and of compost transformation by aerobic composting procedure in composters, in the population's households. -H.5. Raising the awareness of the population on the correct management of wastes and on their selective collection, by accomplishing an annual awareness raising activity at community level. Estimated costs – 12,000 EURO / 54,000 RON Estimated CO_2 reduction target per sector in 2020 –82 t.
	SUSTAINABLE AGRICULTURE	-H.1. Stimulate the development of energy willow (Salix viminalis) in plantation and conducting a sustainable exploitation and use of biomass in heating public and private buildings in Remetea Mare Town - at least 1 hectares / year. -H.2. Incentive measures to replace 25% of the existing fleet with new tractors with low fuel consumption Estimated costs – 14,000 EURO / 63,000 RON Estimated CO_2 reduction target per sector in 2020 –399 t.
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Decision in the Remetea Mare Community was to form a working team including representatives from the various departments or services within the administration, local council representatives, representatives from local institutions, citizens and other stakeholders. The need of an external consultant support was absolutely necessary in order to pursue structured and focused work towards achieving the requirements of membership. The external support received by the local SEAP team and local administration for the SEAP development comes from the `Conurbant` - IEE project team from the Timisoara City Hall municipalities, which helped in many ways the orientation of the SEAP. The internal SEAP team composition was decided by the Mayor within the Decision no.4 issued in 18th January 2012.
	Involvement of stakeholders and citizens	Stakeholder involvement in the case of Remetea Mare was understood at first as a priority, so the development working team's of SEAP had involved representatives of various local business and instutions structures. Also part of the citizens were involved during the public debate on the SEAP, were they had the opportunity to act and propose new measures according to the local comunity needs toward energy efficiency and social development of the city. Several local energy forums and workshops/working groups were held during the SEAP development, were all the participans proposed different measures and actions oriented to CO2 reduction and also adaption measures for climate change. The working groups and local energy forums will support in the future the SEAP actions implementation.
	Overall estimated budget	**The overall estimated budget for implement all the 43 actions** is **1,227,100 EURO**, 5,521,950 RON (1 Euro=4.5 RON)
	Foreseen financing sources for the investments	Local budget, National funds and Programmes, EU Structural funds, Energy Efficiency Fund, ESCOs (EPC), public private partnerships (PPP). A major part of the budget allocate for the SEAP actions implementation will come from local administration budget, and for

	within your action plan	each measures the budget will be agreed and approved in the Local Council prior to implementation, according the internal legal requirements. EU project proposals will be set up for different feasible actions according to the criterias defined in each action of the call.
	Planned measures for monitoring and follow up	In the first year of the implementation period, monitoring instruments will be designed in order to assure the control of measures implementation. Specific indicators will be set up for each measures, in order to have a clear picture of the outcomes year by year. After the first two year of implementation an Evaluation Report will be establish in order to report the implementation status of the SEAP, consisting in performance evaluation results of the short measures proposed to be implemented and also will contain options for improvement.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Modernization of the children's playground, in front of the After-hours Kindergarden in Remetea Mare; 2. Saving up electrical energy in public institutions within the Remetea Mare parish range, by monitoring consumption and by replacing illuminating devices with economical light bulbs. The actions were approved by Remetea Mare Local Council Decision no.21 issued in 12nd August 2013.	
Web address:	http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=860 http://www.dmmt.ro/modules.php?module=news&lg=ro&d=2013-8-12 http://www.eumayors.eu/about/signatories_en.html?city_id=3642&seap	
Contact details:	**TOWN HALL REMETEA MARE, Timiş County, postal code 307350, Romania** **Ilie GOLUBOV, Mayor – +40 256 230201, primaria_remetea_mare@yahoo.com** Şerban – Liviu SAMOILĂ - Deputy Mayor, – +40 256 230201, primaria_remetea_mare@yahoo.com, primaria.remetea?mare"cjtimis.ro	

7. SÎNMIHAIU ROMÂN:

Conurbation:	***TIMISOARA CONURBATION***
Conurbation Town:	**SÎNMIHAIU ROMÂN Town**
Population:	Number of population in 2013: **6,402** (1st July 2013)
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption 30,752 MWh / CO_2 emissions: 11,324 t**
Details related to the public debate on SEAP	The open public debate to approve the SEAP was held at Town Hall of Sînmihaiu Român in data **15.07.2013.**
Approval of SEAP by local authority	The SEAP was approved by the **Local Council Decision nr.105 issued in 29.07.2013**, Timisoara Municipality – Environmental Directory webpage www.dmmt.ro/section dedicated to CONURBANT Project http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=861 http://www.dmmt.ro/modules.php?module=news&id=312&lg=ro
Overall CO_2 emission reduction target by 2020	**20 % CO_2 emission reduction target by 2020** **Per capita reduction**
Long-term vision of the local authority (priority areas of action, main trends and challenges)	The vision of Sînmihaiu Român Town public administration is to assure energetic security both for public and private sector, with the clear orientation toward sustainable development of the town by creating a welbeing environment for the whole citizens. The priorities in setting their targets are to degrease the overall cost for energy consumption in town, to mittigate the public admininstration effort to sustain the local institutions ressource, by setting active measures in the building sector which consist mainly in insulation of all buildings and sustainable heating systems, encouraging sustainable consumption and production, implementation of renewable energy sources, and also creating a structure to provide biomass from sustainable forestration.
Objectives, targets:	The main objectives of the SEAP are to enhance the quality of life and energy comfort at the least cost to the citizens of the town by means of decentralized renewable

	energy supply/sustainable heating with a parallel implementation of energy efficiency measures. Sînmihaiu Român Town developed a policy of energy management at the local level, which covers energy consumption in municipal and residential buildings, street lighting, transport, town planning, education/awareness raising, training, waste management, green areas, and agriculture, covering a number of actions. Objective 1. Reduction of energy consumption and CO_2 emissions in the private houses and public owened buildings; Objective 2. Reduced fuel consumption and CO_2 emissions and mobility; Objective 3. Spatial planning, green public procurement and local networking; Objective 4. Encouraging the use of renewable energy sources. Objective 5: Sustainable waste management and agriculture. Objective 6: Education, training and raising awarness of citizens; Industrial sector has not been taken into account for the emission analysis, being outside of the competency and local public authority influence area. Therefore, no measures and actions have been committed to this sector.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES	Actions: -A.1. Carrying out energy audits for public buildings owned by local authority and their energetic labelling. -A.2. Completion of technical and economic documentation in order to accomplish thermal rehabilitation and energy efficiency projects in public buildings, including the use of renewable energy source and smart metering systems. -A.3. Submission of applications within the National Programme to increase energy efficiency and use of RES in the public sector for municipal buildings. -A.4. Implementation of a system of energy management in buildings owned by the local authority. -A.5. Thermal rehabilitation and energy efficiency of public buildings -A.6. Installation of solar collectors for domestic hot water at the public buildings -A.7. Upgrading interior lighting using energy efficient equipment in buildings in the village schools. -A.8. Installation of two energy efficient biomass stoves/centrals for public buildings. -A.9. Using locally produced sustainable biomass (from the energetic willow plantation) for public buildings heating -A.10. Concluding a number of 2 energy performance contracts - EPC for two public buildings - in order to transform them in energy performant buildings. Costs – 369,500 EURO / 1,662,750 RON Estimated CO_2 reduction target per sector in 2020 – 16 t.
	TERTIATY (non municipal) buidings, equipments/facilities	Actions: -A.11. Promoting the thermal insulation and energetic efficiency on 5 buildings from the tertiary sector (commercial premises/ offices/headquarters, kindergardens, medical institution). Costs – 20,000 EURO / 90,000 RON Estimated CO_2 reduction target per sector in 2020 – 2 t.
	RESIDENTIAL BUILDINGS	Actions: -A.12. Complete thermal insulation of private buildings at a rate of 10% per year. -A.13. Promoting the installation of thermostats in residential buildings using natural gas as a heating source. -A.14. Promoting through information and technical support, the possibility of implementing the "GREEN HOUSE" National Programme for housing and other national programmes aimed at using renewable energy sources. -A.15. Promovarea modernizării sistemelor de încălzire individuală a

		locuințelor, prin înlocuirea sobelor clasice pe centrale cu biomasă, eficiente energetic -A.16. Promoting the instalation of at least one solar collector for heating hot water in residential buildings, at a rate of 10%/year , compared to the total numbers of households with south-facing roofs. -A.17. Upgrading the heat systems of individual homes by replacing the classical stoves with biomass energy efficient heating systems of a rate of 2% of buildings heated with classical stoves/year. -A.18. Promoting a self-monitoring tool for household energy consumption. Costs – 1,337,500 EURO / 6,018,750 RON Estimated CO_2 reduction target per sector in 2020 – 408 t.
	PUBLIC LIGHTNING	Actions: -A.19. Conducting an energy audit of public lighting. -A.20. Installation of independent energy lighting systems (using renewable energy - PV) in residential areas. -A.21. Installation of motion sensors in public streets lighting units in the less traveled streets of the peripheral area of Town -A.22. Rehabilitation and modernization of public lighting in the town center and on the town's main roads by annual replacement of 10% of existing illumination fixtures with energy efficient ones/LED Lightning Technology Costs – 99,000 EURO / 445,500 RON Estimated CO_2 reduction target per sector in 2020 – 7 t.
Other sectors or field of actions covered by SEAP	MUNICIPAL FLEET	-B.1. Promoting mobility by acquisition of a number of 10 bicycles, 2 bicycles / year for civil servants in the Town Hall Sînmihaiu Român and for local police officials, with metering devices for recording the traveled distance -B.2. Reducing emissions from private transport by 1% compared to 2008 - by promoting cycling and walking -B.3. Limiting vehicles speed to 30km/h for less CO^2 emissions, improving air quality, making cycling, walking more enjoyable and for traffic safety. Costs – 7,000 EURO / 31,500 RON Estimated CO_2 reduction target per sector in 2020 – 24 t.
	PUBLIC TRANSPORT	-B.4. Creating a traffic study in order to releave the accurate traffic data, the need of population regarding public and private transport and connection with other localities of the area and Timişoara Municipality Costs – 5,000 EURO / 22,500 RON Estimated CO_2 reduction target per sector in 2020 –No reductions;
	PRIVATE AND COMMERCIAL TRANSPORT	-B.5. Promote the use of car-sharing system -B.6. Promoting the acquisition of new vehicles with low fuel consumption and emissions No Costs associated with these measures; Estimated CO_2 reduction target per sector in 2020 –24 t.
	PHOTOVOLTAIC	-C.1. Implementation of a Public - Privat Partnership to achieve a photovoltaic park (minimum 3 MWp, Local Council share min. 5%) -C.2. Providing public lighting of public parks, greean areas, etc. with lighting units powered by solar panels -C.3. Promoting photovoltaic instalations in the residential and public sectors at a rate of 2% per year with an average of 3KW Costs – 253,000 EURO / 1,138,500 RON Estimated CO_2 reduction target per sector in 2020 – 275 t.
	BIOMASS FROM SUSTAINABLE EXPLOTATION	Action: -C.4. Creation of a biomass supply center required for the production of heat in the residential sector, particularly in homes,

		biomass derived from sustainable explotation, controlled, or providing a list of suppliers of biomass wood boiler enabling its use in individual suppliers delivering/distributing firewood from reliable sources of sustainable forestry Estimated costs – 10,000 EURO / 45,000 RON Estimated CO_2 reduction target per sector in 2020 –1,000 t.
	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Actions: -D.1. Inclusion of energy efficiency, use of renewable energy and sustainable spatial development in the General Urban Plan and Local urban regulations -D.2. Strategic urban planning approach addressing issues of mitigation and adaptation to climate changes, to ensure a high degree of preparedness planning and public infrastructure to climate risks -D.3. Increasing the attractiveness and functionality of common territorial public domain Estimated costs – 30,000 EURO / 135,000 RON Estimated CO_2 reduction target per sector in 2020 –NA
	STANDARDS FOR REFURBISMENT AND NEW DEVELOPMENT	-D.4. Issuing building licences only after preparation and submission by the client of the execution documentation for the new buildings that contain in the project the calculated energy performance, according to Law. 372/2005. -D.5. Energy audits of public buildings and their energy performance certification, according to Law nr.372/2005 (subject to sale, purchase/lease) Estimated costs – 5,000 EURO / 22,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	GREEN AREAS	Actions: -D.6. Increasing green areas surfaces on the territory of the Town of Sînmihaiu Român and for recreational purposes -D7. Planting on the public domain a number of at least 50 trees per year, out of the species resilients to drought and heat stress Estimated costs – 50,000 EURO / 225,000 RON Estimated CO_2 reduction target per sector in 2020 –NA
	ENERGY EFFICIENCY REQUIREMENTS /STANDARDS	Actions and targets: -E.1. Purchase of high energy efficiency class IT, electronic and electrical equipments and devices -E.2. Purchase of paper at a rate of 25%/year, provided from recycled paper -E.3. Including in the specifications for the Public Procurement of services, works of requirements /green criterias regarding machineries, equipments, energy saving, management module, transport and neutralization of waste, environmental management standards Estimated costs – 27,000 EURO / 121,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	ADVISORY SERVICES AWARENESS RAISING AND LOCAL	Actions: -F.1. Acquisition of specialized advisory services to ensure the best technical solutions for implementing energy efficiency measures, use of renewable energy sources – design and execution; -F.2. Local networking in the Local Energy Forum - a consultative body for the implementation of Sustainable Energy Action Plan and organizing at least two annual workshops to discuss issues related to the implementation of the SEAP. -F.3. Awareness of citizens about opportunities in reducing energy consumption, using best practices and technologies state-of the-art, available on the market. -F.4. Organize a campaign to raise public awareness about the

	NETWORKING	possibility of treating biodegradable waste by composting and waste reduction subject to final disposal. -F.5. Organize a campaign to raise public awareness about the possibility of treating biodegradable waste by composting and waste reduction subject to final disposal Estimated costs – 50,000 EURO / 225,000 RON Estimated CO_2 reduction target per sector in 2020 –32 t.
	TRAINING AND EDUCATION	Actions and reducţion targets: -F.6. Training an employee of the Town Hall Sînmihaiu Român, responsible for monitoring energy consumption in the Town (Energy Manager) -F.7. Organization every two years for a Training for energy efficiency in buildings -F.8. Promotion in primary and secondary school of an Environmental Education Programme -F.9. Organizind a contest / competition on environmental responsibility, focused on reducing energy consumption, efficiency and renewable energy Estimated costs – 20,000 EURO / 90,000 RON Estimated CO_2 reduction target per sector in 2020 –5 t.
	SUSTAINABLE WASTE MANAGEMENT	Actions and reducţion targets: -G.1. Increased municipal waste recycling by 5% per year -G.2. Reducing by 20% the amount of waste subject to final disposal -G.3. Organizing a number of two annual campaigns for collection of waste electrical and electronic appliances WEEE -G.4. Promoting the selective collection of biodegradable waste from households and transform into compost through aerobic composting procedure (composting boxes in households) -G.5. Increasing awareness among citizens regarding the proper management of selective waste collection by conducting one annual awareness activity Estimated costs – 72,500 EURO / 326,250 RON Estimated CO_2 reduction target per sector in 2020 –88 t.
	SUSTAINABLE AGRICULTURE	H.1. Stimulate the development of energy crops - energy willow (Salix viminalis) in the Town of Şag and conducting a sustainable exploitation and use of biomass in heating public, private buildings in Sînmihaiu Român Town and for thea village road protection - at least 2 hectares / year Estimated costs – 29,500 EURO / 132,750 RON Estimated CO_2 reduction target per sector in 2020 –399 t.
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity allocated	Decision in the Sînmihaiu Român Community was to form a working team including representatives from the departments within the administration, local council representatives, representatives from local institutions, citizens and other stakeholders. The need of an external consultant support was absolutely necessary in order to pursue structured and focused work towards achieving the requirements of membership. The external support received by the local SEAP team and local administration for the SEAP development comes from the `Conurbant` - IEE project team from the Timisoara City Hall municipalities, which helped in many ways the orientation of the SEAP. The internal SEAP team composition was decided by the Mayor within the Decision no.18 issued in 20th February 2013.
	Involvement of stakeholders and citizens	Stakeholder involvement in the case of Sînmihaiu Român was understood at first as a priority, so the development working team's of SEAP had involved representatives of various local business and instutions structures. Also part of the citizens were involved during the public debate on the SEAP, were they had the opportunity to act

		and propose new measures according to the local comunity needs toward energy efficiency and social development of the city. Several local energy forums and workshops/working groups were held during the SEAP development, were all the participans proposed different measures and actions oriented to CO2 reduction and also adaption measures for climate change. The working groups and local energy forums will support in the future the SEAP actions implementation.
	Overall estimated budget	The overall estimated budget for implement all the **57 actions** is **2,385,000 EURO**, 10,732,500 RON (1 Euro=4.5 RON)
	Foreseen financing sources for the investments	Local budget, National funds and Programmes, EU Structural funds, Energy Efficiency Fund, ESCOs (EPC), public private partnerships (PPP). A major part of the budget allocate for the SEAP actions implementation will come from local administration budget, and for each measures the budget will be agreed and approved in the Local Council prior to implementation, according the internal legal requirements. EU project proposals will be set up for different feasible actions according to the criterias defined in each action of the call.
	Planned measures for monitoring and follow up	In the first year of the implementation period, monitoring instruments will be designed in order to assure the control of measures implementation. Specific indicators will be set up for each measures, in order to have a clear picture of the outcomes year by year. After the first two year of implementation an Evaluation Report will be establish in order to report the implementation status of the SEAP, consisting in performance evaluation results of the short measures proposed to be implemented and also will contain options for improvement.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Replacement of old, non-economic public lighting bulbs with energy efficient lamps; 2. Thermal insulation work of public institutions - schools, kindergartens and health institutions The actions were approved by Sînmihaiu Român Local Council Decision no.105 issued in 29th July 2013.	
Web address:	http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=861 http://www.dmmt.ro/modules.php?module=news&id=312&lg=ro http://www.e-primarii.ro/primaria-sinmihaiuroman http://www.eumayors.eu/about/signatories_en.html?city_id=3725&seap	
Contact details:	**Town Hall Sînmihaiu Român,** Str. Principală no.1, postal code 307380, Romania **Virel BARA, Mayor** – +40 256 294984, primariasanmihaiuroman@yahoo.com Adrian - Vasile ENGELMANN – Deputy Mayor – +40 256 294984, primariasanmihaiuroman@yahoo.com	

8. ŞAG:

Conurbation:	**TIMISOARA CONURBATION**
Conurbation Town:	**ŞAG Town**
Population:	Number of population in 2013: **3,141** (at 1st July)
BEI year:	**2008**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption 20,533 MWh / CO_2 emissions: 7,394 t**
Details related to the public debate on SEAP	The open public debate on SEAP was held at Town Hall of Şag in **15.07.2013.**
Approval of SEAP by local authority	The SEAP was approved by **Şag Local Council Decision nr.28 issued in 23.07.2013** Timisoara Municipality – Environmental Directory webpagewww.dmmt.ro/section dedicated to CONURBANT Project http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=857 http://dmmt.ro/modules.php?module=news&id=308&lg=ro

Overall CO_2 emission reduction target by 2020	**20 % CO_2 emission reduction target by 2020** **Per capita reduction**	
Long-term vision of the local authority	The vision of Sag Town public administration is to assure energetic security both for public and private sector, with the clear orientation toward sustainable development of the town by creating a welbeing environment for the whole citizens. The priorities in setting their targets are to degrease the overall cost for energy consumption in town, to mittigate the public admininstration effort to sustain the local institutions ressource, by setting active measures in the building sector which consist mainly in insulation of all buildings and sustainable heating systems, encouraging sustainable consumption and production, implementation of renewable energy sources, and also creating a structure to provide biomass from sustainable forestration.	
Objectives, targets:	The main objectives of the SEAP are to enhance the quality of life and energy comfort at the least cost to the citizens of the town by means of decentralized renewable energy supply/sustainable heating with a parallel implementation of energy efficiency measures. Şag Town developed a policy of energy management at the local level, which covers energy consumption in municipal and residential buildings, street lighting, transport, town planning, education/awareness raising, training, waste management, green areas, and agriculture, covering a number of 63 actions. Objective 1. Reduction of energy consumption and $C0_2$ emissions in the private houses and public owened buildings; Objective 2. Reduced fuel consumption and $C0_2$ emissions and mobility; Objective 3. Spatial planning, green public procurement and local networking; Objective 4. Encouraging the use of renewable energy sources. Objective 5: Sustainable waste management and agriculture. Objective 6: Education, training and raising awarness of citizens; Industrial sector has not been taken into account for the emission analysis, being outside of the competency and local public authority influence area. Therefore, no measures and actions have been committed to this sector.	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPMENT/ FACILITIES	-A.1. Carrying out energy audits for public buildings owned by local authority and their energetic labelling. -A.2. Completion of technical and economic documentation in order to accomplish thermal rehabilitation and energy efficiency projects in public buildings, including the use of renewable energy source and smart metering systems. -A.3. Submission of applications within the National Programme to increase energy efficiency and use of RES in the public sector for municipal buildings. -A.4. Implementation of a system of energy management in buildings owned by the local authority. -A.5.Thermal rehabilitation of public buildings from the public sector, tertiary sector to achieve the measures of energy efficiency and the use of regenerable sources of energy. -A.6. Concluding a number of 2 energy performance contracts - EPC for two public buildings. -A.7. Installation of solar collectors for hot water production in sports and leisure facilities. -A.8. Upgrading interior lighting using energy efficient equipment in school buildings; -A.9. Increasing energy efficiency and sustainability using photovoltaic and solar panels energy for sport facilities. -A.10. Submission of applications to the National Programme to increase energy efficiency and the use of RES in the public sector, for the public buildings. -A.11. Promoting the installation of solar collectors on 1 public building in the tertiary sector (commercial premises/ offices/headquarters). -A.12. Implementation of intelligent metering systems for electricity

		in buildings - retail, office, business offices. -A.13. Implementation of the "GREEN HOUSE" National Programme for the buildings of public institutions. -A.14. Approval of the installation of electric control systems in buildings, medical offices, public institutions. Costs – 283,500 EURO / 1,275,750 RON Estimated CO_2 reduction target per sector in 2020 – 24.87 t.
	RESIDENTIAL BUILDINGS	-A.15. Complete thermal insulation of private buildings at a rate of 10% per year. -A.16. Promoting the installation of thermostats in residential buildings using natural gas as a heating source. -A.17. Promoting through information and technical support, the possibility of implementing the "GREEN HOUSE" National Programme for housing and other national programmes aimed at using renewable energy sources. -A.18. Upgrading the heat systems of individual homes by replacing the classical stoves with biomass heating systems. -A.19. Promoting the instalation of at least one solar collector for heating hot water in residential buildings, at a rate of 5%/year , compared to the total numbers of households with south-facing roofs. -A.20. Promoting a self-monitoring tool for household energy consumption. Costs – 1,729,200 EURO / 7,781,400 RON Estimated CO_2 reduction target per sector in 2020 – 270 t.
	PUBLIC LIGHTNING	-A.21. Achieving an energy audit of the lighting system of the Town Sag. - A.22. Rehabilitation and modernization of public lighting in the town center and on the town's main roads by annual replacement of 10% of existing illumination fixtures with energy efficient ones/LED Lightning Technology through Energy Performance Contract Project; -A.23. Installation of independent energy lighting systems (using renewable energy - PV) in residential areas. - A.24. Installation of motion sensors in public streets lighting units in the less traveled streets of the peripheral area of Şag. Costs – 22,700 EURO / 102,150 RON Estimated CO_2 reduction target per sector in 2020 – 48 t.
Other sectors or field of actions covered by SEAP	MUNICIPAL FLEET	-B.1. Acquisition of a number of 10 bicycles, 2 bicycles / year for civil servants in the Town Hall Şag and for local police officials, with metering devices for recording the traveled distance -B.2. Acquisition of a car with low fuel consumption (EURO 5 or EURO 6). -B.3. Rationalization of fleet movement Costs – 30,000 EURO / 105,000 RON Estimated CO_2 reduction target per sector in 2020 – 3 t.
	PUBLIC TRANSPORT	- B.4. Expanding urban mobility network for velo movement in Şag Town. -B.5. Urban mobility by extending the network for velo movement and ensuring connection with surrounding settlements in the area and Timisoara Municipality. -B.6. Limiting vehicles speed to 30km/h for less CO^2 emissions, improving air quality, making cycling, walking more enjoyable and for traffic safety. -B.7. Creating a traffic study in order to releave the accurate traffic data, the need of population regarding public and private transport and connection with other localities of the area and Timişoara Municipality. -B.9. Acquisition of a bus for public transport with low fuel

		consumption, to ensure connection with settlements in the ares and Timişoara Municipality. Costs – 463,800 EURO / 2,087,100 RON Estimated CO_2 reduction target per sector in 2020 –246 t.
	PRIVATE AND COMMERCIAL TRANSPORT	-B.10. Promote the use of car-sharing system -B.11. Promoting the acquisition of new vehicles with low fuel consumption and emissions. No Costs associated with these measures; Estimated CO_2 reduction target per sector in 2020 –NA
	PHOTOVOLTAIC	-C.1. Implementation of a public - privat partnership to achieve a photovoltaic park (minimum 3 MWp, Local Council share min. 5%) -C.2. Providing public lighting of parks/squares by public lighting units powered by solar panels -C.3. Promoting photovoltaic instalations in the residential and public sectors at a rate of 2% per year with an average of 3KW. Estimated costs – 268,000 EURO / 1,206,000 RON Estimated CO_2 reduction target per sector in 2020 –477 t.
	BIOMASS FROM SUSTAINABLE EXPLOTATION	-C.4. Creation of a biomass supply center required for the production of heat in the residential sector, particularly in homes, biomass derived from sustainable explotation, controlled, or providing a list of suppliers of biomass wood boiler enabling its use in individual suppliers delivering/distributing firewood from reliable sources of sustainable forestry. Estimated costs – 25,000 EURO / 112,500 RON Estimated CO_2 reduction target per sector in 2020 –870 t.
	STRATEGIC URBAN PLANNING AND TRANSPORT AND MOBILITY PLANNING	Actions and targets: -D.1. Inclusion of energy efficiency, use of renewable energy and sustainable spatial development in the General Urban Plan and Local urban regulations -D.2. Strategic urban planning approach addressing issues of mitigation and adaptation to climate changes, to ensure a high degree of preparedness planning and public infrastructure to climate risks -D.3. Increasing the attractiveness and functionality of common territorial public domain -D.4. Development of Urban Mobility Study/Plan of the Town Şag. -D.5. Ensuring road connexion of Şag Community with other surrounding settlements and Timisoara Municipality. -D.6. Energy audits of public buildings and their energy performance certification, according to Law nr.372/2005 (subject to sale, purchase/lease). No costs associated with these measures; Estimated CO_2 reduction target per sector in 2020 –NA
	GREEN AREAS	-D.7. Making a protective forest tree belt in the former waste landfill, with tree species resistant to drought and heat stress. -D.8. Increasing green areas surfaces on the territory of the Town of Şag and for recreational purposes. Estimated costs – 95,000 EURO / 427,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	ENERGY EFFICIENCY REQUIREMENTS /STANDARDS	Actions and targets: -E.1. Purchase of high energy efficiency class IT, electronic and electrical equipments and devices. -E.2. Purchase of paper at a rate of 75%, provoded from recycled paper, staged 2020. -E.3. Including in the specifications for the Public Procurement of services, works of requirements /green criterias regarding machineries, equipments, energy saving, management module, transport and neutralization of waste, environmental management

		standards. Estimated costs – 37,000 EURO / 166,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	AWARENESS RAISING AND LOCAL NETWORKING	Actions and targets: -F.1. Organizing annualy Energy Day of the Şag Town as event-organized in the frame of EUSEW - European Sustainable Energy Week. -F.2. Local networking in the Local Energy Forum - a consultative body for the implementation of Sustainable Energy Action Plan and organizing at least two annual workshops to discuss issues related to the implementation of the SEAP. -F.3. Awareness of citizens about opportunities in reducing energy consumption, using best practices and technologies state-of the-art, available on the market. -F.4. Organize a campaign to raise public awareness about the possibility of treating biodegradable waste by composting and waste reduction subject to final disposal. Estimated costs – 14,000 EURO / 63,500 RON Estimated CO_2 reduction target per sector in 2020 –NA
	TRAINING AND EDUCATION	Actions and targets: -F.5. Training an employee of the Town Hall Şag, responsible for monitoring energy consumption in the Town. -F.6. Promotion in primary and secondary school of an Environmental Education Programme. -F.7. A contest/competition curricula on environmental responsibility, focused on reducing energy consumption, efficiency and renewable energy. Estimated costs – 6,800 EURO / 30,600 RON Estimated CO_2 reduction target per sector in 2020 –NA
	SUSTAINABLE WASTE MANAGEMENT	Actions and targets: -G.1. Increased municipal waste recycling by 5% per year. -G.2. Reducing by 20% the amount of waste subject to final disposal. -G.3. Organizing a number of two annual campaigns for collection of waste electrical and electronic appliances WEEE. -G.4. Promoting the selective collection of biodegradable waste from households and transform into compost through aerobic composting procedure (composting boxes in households). -G.5. Increasing awareness among citizens regarding the proper management of selective waste collection by conducting one annual awareness activity. Estimated costs – 7,000 EURO / 31,500 RON Estimated CO_2 reduction target per sector in 2020 –76t.
	SUSTAINABLE AGRICULTURE	-H.1. Stimulate the development of energy crops with energy willow (Salix viminalis) in the Town of Şag and conducting a sustainable exploitation and use of biomass in heating public and private buildings in Şag Town - at least 2 hectares / year. -H.2. Incentive measures to replace 25% of the existing fleet with new tractors with low fuel consumption Estimated costs – 28,000 EURO / 126,000 RON Estimated CO_2 reduction target per sector in 2020 –330 t.
Organizational and financial aspects:	Coordination and organizational structures created/ assigned Staff capacity	Decision in the Şag Community was to form a working team including representatives from the various departments or services within the administration, local council representatives, representatives from local institutions, citizens and other stakeholders. The need of an external consultant support was absolutely necessary in order to pursue structured and focused work towards achieving the requirements of membership. The external

	allocated	support received by the local SEAP team and local administration for the SEAP development comes from the `Conurbant` - IEE project team from the Timisoara City Hall municipalities, which helped in many ways the orientation of the SEAP. The internal SEAP team composition was decided by the Mayor within the Decision no.127 issued in 22nd December 2011.
	Involvement of stakeholders and citizens	Stakeholder involvement in the case of Şag, was understood at first as a priority, so the development working team's of SEAP had involved representatives of various local business and instutions structures. Also part of the citizens were involved during the public debate on the SEAP, were they had the opportunity to act and propose new measures according to the local comunity needs toward energy efficiency and social development of the city. Several local energy forums and workshops/working groups were held during the SEAP development, were all the participans proposed different measures and actions oriented to CO2 reduction and also adaption measures for climate change. The working groups and local energy forums will support in the future the SEAP actions implementation.
	Overall estimated budget	The overall estimated budget for implement all the **63 actions** is **3,000,000 EURO**, 13,500,000 RON (1 Euro=4.5 RON)
	Foreseen financing sources for the investments	Local budget, National funds and Programmes, EU Structural funds, Energy Efficiency Fund, ESCOs (EPC), public private partnerships (PPP). A major part of the budget allocate for the SEAP actions implementation will come from local administration budget, and for each measures the budget will be agreed and approved in the Local Council prior to implementation, according the internal legal requirements. EU project proposals will be set up for different feasible actions according to the criterias defined in each action of the call.
	Planned measures for monitoring and follow up	In the first year of the implementation period, monitoring instruments will be designed in order to assure the control of measures implementation. Specific indicators will be set up for each measures, in order to have a clear picture of the outcomes year by year. After the first two year of implementation an Evaluation Report will be establish in order to report the implementation status of the SEAP, consisting in performance evaluation results of the short measures proposed to be implemented and also will contain options for improvement.
Actions selected to be implemented within the first year after finalization of the SEAP	1. Replacement of old, non-economic public lighting bulbs with energy efficient lamps; 2. Modernization of Communal Park; 3. Campaign to raise awareness among citizens about importance of selective waste collection and the SEAP waste management sector targets, through public announces in local newspaper; The actions were approved by Local Council Şag Decision no.28 issued in 22nd July 2013.	
Web address:	http://www.dmmt.ro/index.php?meniuId=28&viewCat=622&viewItem=857 http://dmmt.ro/modules.php?module=news&id=308&lg=ro http://www.e-primarii.ro/primaria-sag-tm http://www.eumayors.eu/about/signatories_en.html?city_id=3612&seap	
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SPAIN
PALMA DE MALLORCA MUNICIPALITY
PALMA DE MALLORCA CONURBATION SEAPs IN FIGURES:

Conurbation Town/ Municipality	Population	BEI year:	Final energy consumption (MWh)	CO2 emissions: (tones)	CO2 emission reduction target by 2020	CO2 Proposed reduction (tones)	Budget EURO
PALMA DE MALLORCA	421,194	2005	6,539,941	2,899,131	23,86%	691,732.66	426,034,687
ESPORLES	4,915	2005	54,350.4	27,581.3	20%	5,516.26	130,577
SANTA MARIA DEL CAMÍ	6,500	2005	81,697.8	34,968.8	20%	6,993.76	661,045
CALVIÀ	53,243	2007	1,451,829.78	670,831.1	20%	134,166.22	11,377,706
ANDRATX	10,748	2005	218,501.33	108,458.58	23%	24,945.47	1,208,716
PUIGPUNYENT	2,010	2005	24,678.21	9,827.03	32%	3,144.65	950,421
TOTAL:	**498,610**		**8,370,998.52**	**3,750,797.81**		**866,499.02**	**440,363,152**

1. PALMA DE MALLORCA

Conurbation:	PALMA DE MALLORCA CONURBATION	
Municipality:	Municipality of Palma	
Population:	421,194 inhabitants in 2012	
BEI year:	2005	
Emission factors	Standard emission factor in line with the IPCC principles	
Results of BEI	**Final energy consumption: 6,539,941.2 MWh / CO_2emissions: 2,899,130.9 to;**	
Details related to the public dabate on SEAP	It was made within the Energy Day on 05.06.2013 with the participants of the administration, municipal council, Autonomous Government, citizens, media representatives, NGOs;	
Approval of SEAP by local authority	SEAP has not been approved until moment because, in compliance with a regional law on environment impact, we must to pass the procedure of integrated environmental assessment. This procedure will delay more than 6 months the approval of the SEAP.	
Overall CO_2 emission reduction target by 2020	**23,86 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	Long-term vision from the Municipality of Palma until 2020 or beyond is to transform the city in a sustainable touristic destination. The city of Palma is an mature touristic destination in the Mediterranean area, nowadays we have many new consolidated touristic destinations all around the Mediterranean See with an competitive complementary offer, and cheaper than Palma from the economical point of view, so we have to find the way to improve our competitiveness as touristic destination. Then environment, efficiency energy and renewable energies are the way to achieve the goal.	
Objectives, targets:	Line 1: Municipal facilities: Lighting actions, Climatization actions, Computers actions, Energy management actions, Awareness actions, Green procurement actions, Renewable energies actions; Line 2: Urban planning and ordinances: Urban Planning actions, Ordinances actions; Line 3: Public Lighting and traffic lighting: Public lighting actions, Traffic lighting actions; Line 4: Residential Sector: Lighting actions, Appliances actions, Climatization actions, Awareness actions, Training actions; Line 5: Services sector: Hotels actions, Stores actions; Line 6: Transport sector: Municipal fleet of vehicles actions, Township vehicles actions, Renewable energies actions, Public Transport actions; Line 7: Waste sector: Waste Management actions, Renewable energies actions; Line 8: Water sector: Efficiency energy, Renewable energies, Awareness;	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS,	Action 1 Lighting: -Incandescent lamps replacement by compact fluorescent and

	EQUIPEMENTS, FACILITIES:	another high efficiency lamps; -Conventional fluorescent replacement by high efficiency fluorescent; -Conventional fluorescent replacement by LED's; -Dichroic halogens replacement (50W) by high performance dichroic halogens (35W); -Dichroic halogen lamps replacement (50W) by LED lamps (7W); -Conventional ballast fluorescents replacement by electronic ballast; -Automatic stop light devices instalation; Action 2 Climatization: -Improving performance of boiler combustion; -Actual boilers replacement by high efficiency natural gas boilers; -Inside temperature control improvement; -Actual electric radiators replacement by low consumption radiators; -Conventional air condicions equipements changement by others with inverters technology; -Inside heat air recuperator; -Informatic control for the air condicioner system intalation; -Elements control installation on glasses surfaces; -Isolation replacement in municipal buildings; -Thermal losses reduction by air infiltrations in municipal buildings access door; -Thermal blanket installation for the inside swimming pools; -Thermal losses removal in outside swimming pools; Action 3 Computers: -Computers towers reduction; -Automatic off computers; Action 4 Energy management: -Energy management system implementation with monitoring consumption; -Energy management appoinment figure in the municipal buildings. Action 5 Awareness: -Good practices manual development in municipal facilities; -Awarenes compaign in all municipal facilities to improve and to consolidate environment good practices; Action 6 Green procurement: -Update the green procurement manual; -Energy clauses incorporation on the tenders documents of cleaning outsourced technical services; -Prioritize green energy purchase by the City Hall; Action 7 Renewables energies: -District heating pilot project in Sant Jordi's municipal swimming pool by sewage sludge; -Fotovoltaic installations; -Solar-thermal energy for domestic hot water; Action 8 Urban planning: -Environmental sustainability criteria implementation in urban planning; Action 9 Ordinances: -Drafting an ordinance for public lighting and buildings installations design with energy efficiency criteria; Action 10 public and traffic lighting: -Existing mercure vapor lamps replacement by high pressure sodium lamps or another high efficiency lamps; -Flow control headboard installation; -Remote and control system installation on the boxes in public

		lighting; -Old Christmas lighting replacement by other more efficient chritmas lighting; -Convenctional traffic lighting replacement by LED traffic lihgting; Estimated cost (All actions in this sector): 12,097,199.7 EURO Estimated CO_2 reduced target: 21,673.94 t CO_2/year
	RESIDENTIAL	Action 1 Lighting: -The existing ighting replacement by another more efficient; Action 2 appliances: -Appliances replacement by anothers energetically more efficient; Action 3 Climatization: -Boilers replacement by anothers more efficient; -Isolation replacement by anothers more efficient; Action 4 awareness: -Implement awareness campaingns to minimaze energy domestic and small economic activities energy consumption; -Define and energy education and mobility program in schools; Action 5 Training: -E-learning program; Estimated cost (all actions in this sector): 141,411,808 EURO; Estimated CO_2 reduced target: 128,604.49 t CO_2/year;
	TERTIARY	Services sector Action 1 Hotels: -Biomass project (and energetic crops in Pla de Sant Jordi) for district heating-cooling supply in Platja de Palma; -Make an specific campaign for hoteliers and restoration sectors; Action 2 Trade: -Actual lighting replacement by others more efficient; Estimated cost (all actions in this sector): 96,324,308 EURO Estimated CO_2 reduced target: 90.972,04 t CO_2/year
	TRANSPORT	Action1: Municipal fleet: -Project to replace municipla vehicles powered by fossil fuel by electric vehicles in general; -Use biodiesel in municipal vehicles; -Develop efficent driving courses; -Development of specifications for the contracting of services outsourced vehicles; Accion 2 Municipal fleet vehicles (including private sector): -Potentiate SMAP parkings; -Walking and cicling mobility planning; -Drafting for a sustainable urban mobility plan (SUMP); -The fleet of cars of the municipality efficient replacement and energy sector diversification; -Electric supply points installation for electric cars; -Encourage the use of biofuels among citizens; -Infrastructures permeabilization and accessibility improvement; -Urban area pedestrianization; -Promote intermobility and public transport; -Implementation of safe school routes; Action 3 Renewables energies: -Pilot test to install a wind turbine for electric vehicles recharging; Action 4 Public transport: -Municipal transport Company bus fleet renewal by sustainable energetically vehicles; -Expand the bus line network; Estimated cost (all actions in this sector): 77,351,959 EURO Estimated CO_2 reduced target: 303,976.84 t CO_2/year

Other sectors or field of actions covered by SEAP	WASTE	Action 1 Waste Management: -Improve waste collection and implementation of the collection of biowaste; -Green points installation and bulky and WEEE management plant; - Waste management improvement from mobile phone application; Action 2 Renewables energies: -Project to energetic use of landfill biogas; -Project to produce waste derived fuel from hibridization with sludges, biomass and waste; -Pilot project to recover waste from vermiculture; -Thermal hydrolysis implementation for sludge treatment; Estimated cost (all actions in this sector): 14,309,412 EURO Estimated CO_2 reduced target: 102,965.58 t CO_2/year
	WATER	Action 1 Efficiency energy: -WTP project (Font de la Vila) to eleliminate water consumption from desalination plant; - Efficiency energy plan applied to water cycle; -Water supply and sewage network renevall; Action 2 Renewable energies: -Cuber-Lloseta hydraulic turbine project; Action 3 Awareness: -Awareness campaigns to minimize water consumption in homes and distribute water saving devices; Estimated cost (all actions in this sector): 84,540,000 EURO Estimated CO_2 reduced target: 43,655.27 t CO_2/year
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Administrative structure assigned, including professionals from the following fields - experts from Area, "Environment, Infrastructures and territorial Cooperation" Energy management is carried out by experts from the Infrastructures department. Project engineers from EMAYA (Waste and Sewage municipal company) projects department.
	Involvement of stakeholders and citizens	Energy days have been organized and are planned to be organized. Information campaigns for the tertiary sector toke and will take place in the Municipality
	Overall estimated budget	426,034,686.7 EURO;
	Foreseen financing sources for the investments	Municipal budget, EU Structural funds, Intelligent Energy Europe Programme, JESSICA initiative, EIB Credit Line for Energy Efficiency, Jessica initiative, LIFE program, ESCO, public private partnerships.
	Planned measures for monitoring and follow up	Report on the SEAP implementation every two years.
Actions selected to be implemented within the first year after finalization of the SEAP	-Elaboration of a comparative public transport table with which to establish the fare system that better suits the needs of the public transport users. -Conducting an awareness campaign for minimizing the energy consumption in the domestic sector and in small business activities.	
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2. MUNICIPALITY OF ESPORLES

Conurbation:	**PALMA DE MALLORCA CONURBATION**	
Municipality:	**MUNICIPALITY OF ESPORLES**	
Population:	**4,915 inhabitants in 2012**	
BEI year:	**2005**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 54,350.4 MWh / CO_2 emissions: 27,581.3 t. CO2**	
Details related to the public dabate on SEAP	It was made within the participative process of Local Agenda 21.	
Approval of SEAP by local authority	Approved by municipal plenary session in February 2012.	
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	Long-term vision from the Municipality of Esporles until 2020 or beyond is to transform the city in a sustainable town. The city of Esporles has become a dormitory town for the city of Palma, before that, it was an agricultural town with a good quality environment, in the middle of the one single mountainous area in the Mallorca Island. In the last few years this quality has decreased so, the city hall want an effective and sustainable management of energy resources and an green economic growth (in this time of economical crisis), offering high quality services to the population and a healthy and affordable living environment. Then environment, efficiency energy and renewable energies are the way to achieve the goals. The Municipality of Esporles is a municipality committed to fight against climate change.	
Objectives, targets:	Line 1: Buildings, facilities and services: Municipal buildings and facilities actions, Public Lighting and traffic lights actions, Residential Sector actions, Services sector actions; Line 2: Transport sector: Municipal fleet of vehicles actions, Private and comercial, Transport actions; Line 3: Local energy production: Photovoltaic Energy actions; Line 4: Green procurement: Energy efficiency requirements actions, Renewable energy requirements actions; Line 5: Citizen participation: Training and enrironmental education actions, Counseling services;	
SEAP actions in key sectors:	MUNICIPAL	Action 1: Municipal buildings and facilities -Fluorescent installation with higher efficiency in new facilities; -Conventional ballast fluorescents replacement by electronic ballast; -Improving the performance of boilers flue; -Regulate buildings temperature at 21 ºC in winter and 25 ºC in summer; -Solar-thermal energy for domestic hot water; -Gasoil boilers replacement by biomass boilers; -Computers towers reduction through shared computers; -Energy management appoinment figure in the municipal buildings; -Developing the manual of good environment practices in municipal facilities; Action 2: Public Lighting and traffic lights -Replacement of mercure vapor lamps by sodium vapor lamps or another hihger performance lamps; -Christmas lighting replacement by onother more efficient chritmas lighting; -Installation of remote and control system in panels of new public lighting. Action 5: Municipal fleet vehicles -Renewal of municipal fleet vehicles; -Incorporating energy clauses in the terms and technical requirement for outsourced services; Action 8: Energy efficiency requirements

		-ESCO's hiring for maintenance of municipal facilities and public lighting; Action 9: Renewable energy requirements -Prioritize energy green procurement from the City Hall; Action 10: Training and enrironmental education -Develop regular public communication campaigns on energy saving Action 11: Counseling services -Give specific training to those resposibles for the maintenance of municipal buildings and facilities; Estimated cost (all actions in this sector): 125,016 EURO Estimated CO_2 reduced target: 701.21 t CO_2/in 2020
	RESIDENTIAL	Action 3: Residencial sector -Encourage improvements in energy efficiency in the domestic sector through the implementation of active systems Estimated cost (all actions in this sector together): 2,809.24 EURO Estimated CO_2 reduced target: NA
	TERTIARY	Action 4: Services sector -Encourage improvements in energy efficiency in the domestic sector through the implementation of active systems; Estimated cost (all actions in this sector): 912.56 EURO Estimated CO_2 reduced target: NA
	TRANSPORT	Action 6: Private and commercial transport -Organizing efficient driving courses for citizens and municipal vehicles; Estimated cost (all actions in this sector): 1,839.66 EURO Estimated CO_2 reduced target: NA
Other sectors or field of actions covered by SEAP	ENERGY	Action 7: Photovoltaic Energy -Promoting photovoltaic facilities for selfconsumption in isolated properties; Estimated cost (all actions in this sector): NA Estimated CO_2 reduced target: NA
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	-Administrative structure assigned, including professionals from the following fields - experts from Environment Area, Urban Area, Maintenance Area and Citizen participation Area -Energy management is carried out by experts from private companies. -Technical consultants from private company.
	Involvement of stakeholders and citizens	Information and awareness sessions on the SEAP. Information campaigns for the tertiary and residential sector toke and will take place in the Municipality
	Overall estimated budget	130,577.46 EURO
	Foreseen financing sources for the investments	Municipal budget, EU Structural funds, Intelligent Energy Europe Programme, LIFE program, ESCO, public private partnerships.
	Planned measures for monitoring and follow up	Report on the SEAP implementation every two years.
Actions selected to be implemented within the first year after finalization of the SEAP	-Elaboration of a comparative public transport table with which to establish the fare system that better suits the needs of the public transport users. -Conducting an awareness campaign for minimizing the energy consumption in the domestic sector and in small business activities.	
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	Pilar Tous - Municipal Technician Phone: +34971610002 ext.55, e-mail: agenda21@esporles.cat

3. MUNICIPALITY OF SANTA MARIA DEL CAMÍ

Conurbation:	**PALMA DE MALLORCA CONURBATION**	
Municipality:	**MUNICIPALITY OF SANTA MARIA DEL CAMÍ**	
Population:	**6,500 inhabitants in 2013**	
BEI year:	**2005**	
Emission factors	**Standard emission factor in line with the IPCC principles**	
Results of BEI	**Final energy consumption: 81,697.8 MWh CO_2 emissions: 34,968.8 t. CO2**	
Details related to the public dabate on SEAP	It was made within the participative process of Local Agenda 21.	
Approval of SEAP by local authority	Approved by the municipal plenary session in November 26, 2011	
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**	
Long-term vision of the local authority	Long-term vision from the Municipality of Santa Maria del Cami until 2020 or beyond is to transform the city in a sustainable town. The city of Santa Maria del Cami has become a dormitory town for the city of Palma, before that, it was an agricultural town with a good quality environment. In the last few years this quality has decreased so, the city hall want an effective and sustainable management of energy resources and an green economic growth (in this time of economical crisis), offering high quality services to the population and a healthy and affordable living environment. Then environment, efficiency energy and renewable energies are the way to achieve the goals.	
Objectives, targets:	Line 1: Facilities and services: Municipal buildings and facilities actions, Public Lighting and traffic lights actions, Residential Sector actions, Services sector actions; Line 2: Transport sector: Municipal fleet of vehicles actions, Private and comercial Transport actions; Line 3: Local energy production: Photovoltaics actions, Renewable Energy sources actions; Line 4: Planing: Mobility and transport plans actions; Line 5: Green procurement: Energy efficiency requirements actions, Renewable energy requirements actions; Line 6: Citizen participation: Awareness and work in local networks actions; Line 7: Waste; Line 8: Water;	
SEAP actions in key sectors:	MUNICIPAL	Action 1: Municipal buildings and facilities -Incandescent and halogen dichroic lamps replacement with others with higher performance; -Fluorescent installation with higher efficiency; -Conventional ballast fluorescents replacement by electronic ballast; -Installation of automatic stop devices light; -Improvement of inside temperature control; -Regulate buildings temperature at 21 ºC in winter and 25 ºC in summer; -Solar-thermal energy for domestic hot water; -Gasoil boilers replacement by biomass boilers; -Computers towers reduction through shared computers; -Energy management appointment figure in the municipal buildings; -Developing the manual of good environment practices in municipal facilities; -Performing regular energy audits of municipal facilities; -ESCO's hiring for maintenance of municipal facilities; Action 2: Public Lighting and traffic lights -Promote LED's installation throught CITY LABS application; -ESCO's hiring for maintenance of public lighting;

		Action 6: Photovoltaics -Installing a phovoltaic plant on roofs of municipal buildings; -Installing a private photovoltaic plant with 6 solar panels; -Development inventory of renewable energy facilities from private sector in the town; Action 7: Mobility and transport plans -Development urban mobility plan and dissemination campaign on the same; -Installation of renewable energy points to supply electric vehicles; Action 8: Energy efficiency requirements -Developing a green procurement manual; Action 9: Renewable energy requirements -Prioritize green energy purchase from the city hall; Action 10: Awareness and work in local networks actions; -Dissemination of energy savings due to renewable energies implantacion in municipal facilities; -Develop a SEAP communication campaign; Estimated costs (all actions in this sector): 609,045 EURO; Estimated CO_2 reduced target: 616.37 t CO_2/in 2020;
	RESIDENTIAL	Action 3: Residential sector -100% replacement of incandescent bulbs; -Appliances and climatization facilities replacement by anothers energetically more efficient; -Isolation replacement by anothers more efficient; Estimated costs (all actions in this sector): NA; Estimated CO_2 reduced target: 3,561.34 t CO_2/in 2020;
	TERTIARY	Action 4: Services sector -Promote energy manager figure in services companies; -Regulation of operating conditions for show windows and illuminated signs; Estimated cost (all actions in this sector together): 9,000 EURO; Estimated CO_2 reduced target: 78.32 t CO_2/in 2020;
	TRANSPORT	Action 5: Transport sector -Prioritize electric vehicles purchase in the vehicles municipal fleet -Efficient driving courses for council staff -Offsetting emissions in outsourced fleet vehicles -Efficient renovation of the municipality fleet and energy diversification of the sector Estimated cost (all actions in this sector): NA; Estimated CO_2 reduced target: 1,656.05 t CO_2/in 2020;
Other sectors or field of actions covered by SEAP	WASTE	Action 11: Waste -Implementation of red bag for minimizing rejection; -Actions to increase selective collection from others fractions; Estimated cost (all actions in this sector): 16,000 EURO Estimated CO_2 reduced target: 648.76 t CO_2/in 2020
	WATER	Action 12: Water -Study of the econonic feasibility of amending the sections of water canon; -Incorporation of an electrolysis system in the swimming pool; Estimated cost (all actions in this sector together): 27,000 EURO; Estimated CO_2 reduced target: 42.56 t CO_2/in 2020;
	Coordination and organizational structures created/assigned Staff capacity allocated	-Administrative structure assigned, including professionals from the following fields - experts from Environment Area, Urban Area and Citizen participation Area -Energy management is carried out by experts from private companies. -Technical consultants from private company.

Organizational and financial aspects:	Involvement of stakeholders and citizens	Information and awareness sessions on the SEAP. Information campaigns for the tertiary and residential sector toke and will take place in the Municipality
	Overall estimated budget	661,045 EURO
	Foreseen financing sources for the investments	Municipal budget, EU Structural funds, Intelligent Energy Europe Programme, LIFE program, ESCO, public private partnerships.
	Planned measures for monitoring and follow up	Report on the SEAP implementation every two years.
Actions selected to be implemented within the first year after finalization of the SEAP	-Elaboration of a comparative public transport table with which to establish the fare system that better suits the needs of the public transport users. -Conducting an awareness campaign for minimizing the energy consumption in the domestic sector and in small business activities.	
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4. MUNICIPALITY OF CALVIÀ

Conurbation:	**PALMA DE MALLORCA CONURBATION**
Municipality Town:	**MUNICIPALITY OF CALVIÀ**
Population:	**53,243 inhabitants in 2013**
BEI year:	**2007**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 1,451,829.78 MWh / CO_2 emissions: 670,831.1 t. CO2**
Details related to the public dabate on SEAP	It was made within the energy day on 05.06.2013 with the participants of the administration, municipal council, Autonomous Government, citizens, media representatives, NGOs
Approval of SEAP by local authority	SEAP has been approved by the municipal plenary in December 2012. http://www.calvia.com
Overall CO_2 emission reduction target by 2020	**20 % by 2020** **Absolute reduction**
Long-term vision of the local authority (priority areas of action, main trends and challenges)	The city of Calvià was pioneering on Sustainability policies in the nineties with the local agenda 21 implementation, so long-term vision from the Municipality of Calvià until 2020 or beyond is to carry on with the transformation of the city in a sustainable touristic destination. The city of Calvià is an mature touristic destination in the Mediterranean area, and during nineties and early two thousand there was a lot of actuations in the city, from different points of view (Urban, Tourism, Environment, Education, etc), so now they have to find the way to continue improving your environment quality and competitiveness as touristic destination. Then, environment, efficiency energy and renewable energies are the way to achieve the goal, and is the way to fight against climate change.
Objectives, targets:	Line 1: Buildings, equipments and facilities: Buildings and equipments/ Municipal facilities, Buildings and equipments/ Tertiary facilities, Residencial buildings, Municipal public lighting; Line 2: Transport: Municipal Fleet, Public transport, Private and commercial transport, Reduction of mobility needs, Bike mobility; Line 3: Local energy production: Photovoltaic; Line 4: Heating/cooling local urban, cogeneration: Heat and electricity cogeneration, Biomass; Line 5: Spatial Planning: Urbanism, Transport and mobility planning, Municipal regulations for urban renewal and expansion;

	Line 6: Public procurement of product and services: Municipal regulation/Requirements of energy efficiency; Line 7: Collaboration with citizens and stakeholders: Counseling services, Financial and grant aid, Awareness and local network creation, National and international networks, Training and education, Awards, Participation, Dissemination; Line 8: Others: Waste, Natura resources saving, Municipal organization, Climate change adaptation, Emergencies, Social wellfare, Sustainable tourism, Reforestation/Forest harvesting, Sinks, Biodiversity;	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS, EQUIPEMENTS AND FACILITIES:	Action 1 Buildings and equipments/Municipal facilities: -Energy service in municipal facilities; -Energy audit in schools and nurseries; -Implementation of energy efficiency measures in wastewater in pumping stations; -Energy efficiency improvement in main pumping of wastewater pumping stations; -Development of maintenance program for operation and manteinance of facilities; -Integral reform of Calvia WWTP; -Virtual computer desks; Action 4: Municipal public lighting -Energy efficiency public lighting; -Luminosity control and manteinance of public lighting facilities; Action 13: Urbanism -Study on impact of climate change in Calvia; -Incorporating criteria for climate change adaptation in local urban planning; Action 14: Transport and mobility planning -Accessibility plan in municipal facilities and public roads; -Green routes network around schools in the municipality -Pedestrian walks enlargement; -Speed reducers implementation; Action 15: Municipal regulations for urban renewal and expansion -Development of territorial restructuring areas defined in land-use-planning under sustainability criteria; -Urban development within the AT-H (transition areas in land-use-planning); -Sustainable development of public use facilities in urban land; -Municipal action program on free prublic spaces; -Guide on environmental plannig regulation of land-use-planning of Calvia; -Creation of the municipal works department office; Action 16: Sustainable procurement -Statement of principle towards of municipal green procurement; -Information to the municipal green procurement commitment to potencially contracting companies with municipality; -Sustainable criteria incorporation in Town Hall contrats; -Sustainable resource management in municipal buildings; -Responsible use of resources campaign among City staff; -Promoting good practices in the municipal energy consumption; Action 17: Counceling services: -Incorporating sustainability and climate change criteria in the IFOC company service and promoting innovative companies creation in the town; Action 18: Financial and grant aid - Promote tax credits to development of energy efficiency and renewable energy actions; Action 19: Awareness and local network creation - European mobility week;

		-Preventive campaigns development to groups at risk in fornt temperatures and extreme weather events; -Actions cordination for climate associations and town companies; -Companies network for climate; -Campaigns to use public transport; -Campaigns to use bicycle in Calvia; -Volunteers group project Costa d'en Blanes; -Citizens awareness and information about fire prevention; -Citizens awareness and information about water cycle; -Social network Calvia by climate; Action 20: National and international networks -Particiation in regional, national and international climate change networks; Action 21: Training and education -Creating an environment interpretation room; -Calvia, forum for climate; -School local agenda 21 and school forum 21; -School local agenda 21 for teachers; -Promotion training courses in sustainability and climate change among City staff; -Performing environmental management „training pills" in the IFOC business meetings; -Development workshops about environmental employment or rural heritage; -Courses and workshops promoting environmental mangement; -Promoting savings in consumption of natural resources in touristic establishment; Action 22: Awards -Calvia architecture awards; -Recognition of environmentally responsible township companies; Action 23: Participation -Calvia work group for climate; -Climate change citizen participation; Action 24: Dissemination -Dissemination actions of Calvia strategy for climate; -Calvia for climate website; -Dissemination of good business practices on natural resources and energy efficiency consumption; -Dissemination of grant and aids to companies to improve energy efficiency and energy renewable implement; -Dissemination of environmental planning regulation among various professional concerned bodies; Action 27: Municipal organization -Municipal Commission on climate change; -Implementation and monitoring of Calvia for climate Strategy; -Observatory of Calvia GHG emissions; -Developing environmental agent figure; -Incorporation of Calvia for climate office to group Calvia beach management; Action 28: Climate change adaptation -Urban gardens promotion; -Calvia weather observatory; -Collaboration agreement with DG emergencies and AEMET to share information from weather station; -Working group between DG emergency and AEMET; Action 29: Emergencies -Development of municipal emergency plan; -Selfprotection plan of Costa d'en Blanes urbanization;

		-Separation of rainwater network from sanitation network; Action 30: Social wellfare -Collaboration with project „Vacances in pau"; -Municipal observatory of social needs; -Home care service to people and groups on risk in front of temperatures and extreme weather events; -Supporting family carers of dependents through support groups; Action 31: Sustainable tourism -Promotion plan and deseasonalisation of tourism in Calvia; -Sectorial council to tourism promotion and Calvia basic offer; -New hotels accesion to selective collection agreement; -Green Patrol; -Sewage discharges reduction into the sea; -Implementation of generators and automation facilities at pumping stations; -Program Calvia free from jellyfis; -Galatzo land farm promotion among tourist and town neighbors; -Plunging Balears Frigate; Action 32: Reforestation/ Forest harvesting -Performances by reforestation and afforestation; -Reforestation campaigns; -Forest haverting at Galatzo land farm; -Trees reforestation in urban areas; -Performances by forest clearing; Action 33: Sinks -Promote protection the posidonia grassland through development finding regulation plans; -Promotion of marine cleaning actions; -Quality studies of municipal coastal seabeds; Action 34: Biodiversity -Calvia Birding project; -Studies about biodiversity at Galatzo land farm; -Dissemination program of tortuga Mora; -Conservation program of protected species; Estimated cost (all actions in this sector): 2,930,400 EURO Estimated CO_2 reduced target: 2,004.4 t CO_2/in 2020
	RESIDENTIAL	Action 3 Residential buildings: -Incorporation of environment and energy efficiency criteria in new housing development; -Incorporation of environment and energy efficiency criteria for aid in housing refurbishment; -Incorporation of environment criteria in new buildings constructed in Calvia; Estimated cost (all actions in this sector): NA; Estimated CO_2 reduced target: 347 t CO_2/in 2020;
	TERTIARY	Services sector Action 2: Buildings and equipments/ Terciary facilities -Promoting hoteliers conversion and modernization in condotels and others tourism exploitation forms -Redefinition of use of commercial stablishments; -Refurbishment of commercial plant; Estimated cost (all actions in this sector): NA; Estimated CO_2 reduced target: 4,100 t CO_2/in 2020
	TRANSPORT	Action 5: Municipal Fleet -Promotion use of „clean vehicles" in municipal services; Action 6: Public transport -Card senior discount in Calvia interurban transport; -Promoting citizen card (for bus);

		-Calvia university bus; -Adapted transport service; Action 7: Private and commercial transport; -Propmotion implementation of „clean vehicles" in Calvia mobile park; -Implementation of charging points for electric vehicles in the town; Action 8: Reduction of mobility needs; -Administrative single window through internet; -Online administrative processing of urban licenses; -Implementation of water remote meters reading system; Action 9: Bike mobility - Promote a bicycle loan system in the municipality; - Bicycle parking network in municipal facilities; Estimated cost (all actions in this sector): 101,590 EURO Estimated CO_2 reduced target: 27,619 t CO_2/year
Other sectors or field of actions covered by SEAP	ENERGY	Action 10: Photovoltaic -Photovoltaic solar panels network on municipal facilities roofs; -Photovoltaics solar panels network in Calvia houses; -Photovoltaics solar panels network in Calvia hotels; -Photovoltaics solar panels network in companies of industrial area in Calvia (Son Bugadellas); Action 11: Heat and electricity cogeneration; -Gas natural distribution network enlargement to all municipality; -Cogeneration promotion between large consumers of Calvia; -Promotion of district heating/cooling networks in Calvia; -Thermal solar panels in publis sports facilities; Action 12: Biomass -Biomass boilers installation in public facilities; -Biomass boilers promotion in private facilities; Estimated cost (all actions in this sector together): 116,000 EURO Estimated CO_2 reduced target: 73,556 t CO_2/year
	WASTE	-Reinforcing collection of packaging cardboard in municipality major touristic beaches; -Calvia waste management area; -Promoting domestic compost development; -Collecting organic matter in township public schools; -Communication campaign to promote selective collection; -Collecting pruning waste; Estimated cost (all actions in this sector together): 2,862 EURO Estimated CO_2 reduced target: NA;
	WATER	Action 26: Natura resources saving; -Electronic signature of municipal bills; -Audit on the municipal water consumption and development of reduction consumption municipal program; -Upgrade system of town water counters; -Control and minimization of municipal disseminated water consumption; Installation of water-saving system in municipal irrigation; -System implementation for predicting water demand (SETIR); -Program development for leak control on drinking water supply network; -Design and development of garden areas in water low consumption; -Network enlargement for treated water distribution; -Terciary treatment Implementation at Santa Ponsa WWTP; -Bendinat WWTP renovation; -Paguera WWTP renovation; -Recovery public water system of Galatzo public land farm;

		Estimated cost (all actions in this sector): 8,226,854 EURO Estimated CO_2 reduced target: NA
Organizational and financial aspects:	Coordination and organizational structures created/assigned Staff capacity allocated	Administrative structure assigned, including professionals from the following fields - experts from Area, "Urbanism, Environment" Energy management is carried out by experts from different departments Project engineers and technicians from Calvia by the Climate office.
	Involvement of stakeholders and citizens	To inform citizens, Municipality of Calvia took advance to participative processes of local agenda 21. Information campaigns for the tertiary sector toke and will take place in the Municipality.
	Overall estimated budget	11,377,706 EURO
	Foreseen financing sources for the investments	Municipal budget, EU Structural funds, Intelligent Energy Europe Programme, JESSICA initiative, EIB Credit Line for Energy Efficiency, Jessica initiative, LIFE program, ESCO, public private partnerships.
	Planned measures for monitoring and follow up	Report on the SEAP implementation every two years.
Actions selected to be implemented within the first year after finalization of the SEAP	-Elaboration of a comparative public transport table with which to establish the fare system that better suits the needs of the public transport users; -Conducting an awareness campaign for minimizing the energy consumption in the domestic sector and in small business activities;	
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5. MUNICIPALITY OF ANDRATX

Conurbation:	**PALMA DE MALLORCA CONURBATION**
Municipality:	**MUNICIPALITY OF ANDRATX**
Population:	**10,748 inhabitants in 2013**
BEI year:	**2005**
Emission factors	**Standard emission factor in line with the IPCC principles**
Results of BEI	**Final energy consumption: 218,501.33 MWh / CO_2 emissions: 108,458.58 t. CO2**
Details related to the public debate on SEAP	The action plan was exposed to the citizens, with the objective to show the inventory results, get to know the citizen's opinion and prioritize the order of execution of the actions included within the plan.
Approval of SEAP by local authority	Approved by the municipal plenary session
Overall CO_2 emission reduction target by 2020	**23 % by 2020** **Per capita reduction**
Long-term vision of the local authority	Photovoltaic systems in city council buildings, street lighting and traffic lights efficiency, energy efficiency plans for the city council buildings, urban mobility, awareness campaigns for the citizens, ...
Objectives, targets:	Line 1: Facilities and services: Municipal buildings and facilities actions, Public Lighting and traffic lights actions, Residential Sector actions, Services sector actions; Line 2: Transport sector: Municipal fleet of vehicles actions, Private and commercial Transport actions; Line 3: Local energy production: Photovoltaics actions; Line 4: Planning: Mobility and transport plans actions; Line 5: Green procurement: Energy efficiency requirements actions;

	Line 6: Citizen participation: Awareness and work in local networks actions; Line 7: Waste Line 8: Water	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS AND FACILITIES ACTIONS	-Incandescent and halogen dichroic lamps replacement with others with higher performance; -Fluorescent installation with increased efficiency; -Replacing conventional ballasts for electronic ones; -Installation of automatic stop devices light; -Improved combustion efficiency of boilers; -Regulate buildings temperature at 21 ºC in winter and 25 ºC in summer; -Installation of a thermal blanket to the heated pool; -Solar-thermal energy for domestic hot water; -Gasoil boilers replacement by biomass boilers; -Computers towers reduction through shared computers; -Automatic shutdown of computer equipment; -Energy management appointment figure in the municipal buildings; -Performing regular energy audits of municipal facilities; -Developing the manual of good environment practices in municipal facilities; -Regulation of the operating conditions of lighting and signs in windows of businesses; -ESCO's hiring for maintenance of municipal facilities; Public Lighting and traffic lights actions -Preparation of master plan for public lighting; -Replacement of mercury vapor lamps for sodium vapor lamps or other lamps with increased efficiency; -Installation of astronomical clocks; -Installation of flow regulation on head; -Installation of remote control systems and control panels for new public lighting; -Replacement of the Christmas lights for other more efficient; -Replacement of conventional traffic lights to LED type lights; Photovoltaics actions; -Installing solar power panels on roofs for generating electricity from sunlight; Mobility and transport plans actions -Inclusion of a chapter about sustainable building and urban planning in the construction works municipal law; -Implementation of bioclimatic architecture criteria in domestic and municipal buildings, as well as in new sectors activities; -Development urban mobility plan and dissemination campaign on the same; -Installation of renewable energy points to supply electric vehicles; Energy efficiency requirements actions; -ESCO's hiring for maintenance of municipal facilities; Awareness and work in local networks actions; -Carry out awareness campaigns to reduce energy consumption in the domestic sector and small business activities; Estimated cost (all actions in this sector): 1,158,716 EURO; Estimated CO_2 reduced target: 5,818.26 t CO_2/in 2020;
	RESIDENTIAL	-Replacement of 100% of incandescent light bulbs; -Replacement of appliances and air conditioning equipment for other more energy efficient; -Replacement of locks by other more efficient; Estimated cost (all actions in this sector): NA; Estimated CO_2 reduced target: 11,569.16 t CO_2/in 2020
	TERTIARY	Services sector actions

		-Regulation of the operating conditions of lighting and signs in windows of businesses; Estimated cost (all actions in this sector): NA; Estimated CO_2 reduced target: 21.86 t CO_2/in 2020
	TRANSPORT	-Renewal of the fleet of municipal vehicles; -Prioritize electric vehicles purchase in the vehicles municipal fleet; -Inclusion of energy in terms of technical specifications of the outsourced services ; -Efficient renovation of the municipality fleet and energy diversification of the sector; Estimated cost (all actions in this sector): NA; Estimated CO_2 reduced target: 2,171.61 t CO_2/in 2020;
Other sectors or field of actions covered by SEAP	WASTE	- Actions to improve selective collection from others fractions; Estimated cost (all actions in this sector together): 30,000 EURO; Estimated CO_2 reduced target: 3,250.19 t CO_2/in 2020;
	WATER	-Perform regular awareness campaigns to reduce water consumption in homes and distribute water saving devices; -Improved management of irrigation of landscaped areas; Estimated cost (all actions in this sector together): 20,000 EURO; Estimated CO_2 reduced target: 1,011.87 t CO_2/in 2020;
	OTHER	-Replacement of fuel oil and LPG for natural gas; Estimated cost: NA; Estimated CO_2 reduced target: 1,039.42 t CO_2/in 2020
	Coordination and organizational structures created/assigned Staff capacity allocated	Environmental Department from the Council
Organizational and financial aspects:	Involvement of stakeholders and citizens	Internal: Meetings with the city council politicians and technicians. Preparation: meetings and presentations.
	Overall estimated budget	1,208,716 EURO
	Foreseen financing sources for the investments	Andratx Council budget, european funds, diferent balear and spanish funds.
	Planned measures for monitoring and follow up	Implementation report every second year
Actions selected to be implemented within the first year after finalization of the SEAP	-Elaboration of a comparative public transport table with which to establish the fare system that better suits the needs of the public transport users. -Conducting an awareness campaign for minimizing the energy consumption in the domestic sector and in small business activities.	
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6. MUNICIPALITY OF PUIGPUNYENT

Conurbation:	**PALMA DE MALLORCA CONURBATION**
Municipality:	**MUNICIPALITY OF PUIGPUNYENT**
Population:	**2,010 inhabitants in 2013**
BEI year:	**2005**
Emission factors	**Standard emission factor in line with the IPCC principles**

Results of BEI	**Final energy consumption: 24,678.21 MWh / CO_2 emissions: 9,827.03 t. CO2**	
Details related to the public debate on SEAP	The action plan was exposed to the citizens, with the objective to show the inventory results, get to know the citizen's opinion and prioritize the order of execution of the actions included within the plan.	
Approval of SEAP by local authority	Approved by the municipal plenary session, in October 25th, 2011	
Overall CO_2 emission reduction target by 2020	**32% by 2020** **Per capita reduction**	
Long-term vision of the local authority	Photovoltaic systems in city council buildings, street lighting and traffic lights efficiency, energy efficiency plans for the city council buildings, urban mobility, awareness campaigns for the citizens, ...	
Objectives, targets:	Line 1: Facilities and services: Municipal buildings and facilities actions, Public Lighting and traffic lights actions, Residential Sector actions, Services sector actions; Line 2: Transport sector: Municipal fleet of vehicles actions, Private and commercial Transport actions; Line 3: Local energy production: Photovoltaics actions; Line 4: Planning: Mobility and transport plans actions, Regulations for urban renewal and sprawl; Line 5: Green procurement: Energy efficiency requirements actions, Renewable energy requirements actions; Line 6: Citizen participation: Advisory services, Financial aid and subsidies Awareness and work in local networks actions, Education; Line 7: Waste Line 8: Water	
SEAP actions in key sectors:	MUNICIPAL BUILDINGS AND FACILITIES ACTIONS	-Incandescent and halogen dichroic lamps replacement with others with higher performance; -Fluorescent installation with increased efficiency; -Replacing conventional ballasts for electronic ones; -Installation of automatic stop devices light; -Improved combustion efficiency of boilers; -Regulate buildings temperature at 21 ºC in winter and 25 ºC in summer; -Installing solar energy systems to obtain ACS; -Computers towers reduction through shared computers; -Automatic shutdown of computer equipment; -Energy management appointment figure in the municipal buildings; -Performing regular energy audits of municipal facilities; -Hiring an energy partner to advise on energy management; -Developing the manual of good environment practices in municipal facilities; Public Lighting and traffic lights actions -Installation of astronomical clocks; -Replacement of sodium vapor lamps (100W) for sodium vapor lamps (70W); -Replacement of sodium vapor lamps (70W) for LED; Photovoltaics actions; -Installing solar power panels on roofs for generating electricity from sunlight; Mobility and transport plans actions -Preparation of a urban mobility plan and campaign broadcast; -Installation of power points from renewable sources in the municipality; -Promote car sharing; -Regulations for urban renewal and sprawl; -Including criteria for sustainable construction in the town planning rules; Energy efficiency requirements actions

		-Preparation of a green purchase manua;l -Create an ordinance for the A or B energy certificate for new buildings and rehabilitation; Renewable energy requirements actions -Prioritize the purchase of green power by the City Council; -Preparation of an inventory of installed renewable energy facilities; Collaboration with the citizens -Advisory services on energy efficiency in the public service sector and in energy efficiency; -Encourage the purchase of vehicles with low emissions; -Promotion of energy savings associated with the implementation of renewable energy in municipal buildings; -Development of a communication campaign for SEAP; -Development of an education program to promote sustainability; Estimated cost (all actions in this sector): 744,041 EURO; Estimated CO_2 reduced target: 1,245.23 t CO_2/in 2020;
	RESIDENTIAL	-Replacement of 100% of incandescent light bulbs; -Replacement of appliances and air conditioning equipment for other more energy efficient; -Replacement of locks by other more efficient; -Replacing diesel boilers to biomass boilers; Estimated cost: NA; Estimated CO_2 reduced target: 1,272.73 t CO_2/in 2020;
	TERTIARY	Services sector actions -Regulation of the operating conditions of lighting and signs in windows of businesses; Estimated cost: 9,000 EURO; Estimated CO_2 reduced target: 0.85 t CO_2/in 2020;
	TRANSPORT	Transport sector actions -Renewal of the fleet of municipal vehicles -Prioritize electric vehicles purchase in the vehicles municipal fleet; -Efficiency driving courses for the city staff; -Efficient fleet renewal and diversification of the municipality's energy sector; Estimated cost (all actions in this sector): 165,900 EURO; Estimated CO_2 reduced target: 551.84 t CO_2/in 2020;
Other sectors or field of actions covered by SEAP	WASTE	-Actions to improve selective collection from others fractions Estimated cost (all actions in this sector together): 11,480 EURO; Estimated CO_2 reduced target: 5.23 t CO_2/in 2020;
	WATER	-Perform regular awareness campaigns to reduce water consumption in homes and distribute water saving devices; -Improved management of irrigation of landscaped areas; Estimated cost (all actions in this sector): 20,000 EURO; Estimated CO_2 reduced target: 35.92 t CO_2/in 2020;
	Coordination and organizational structures created/assigned Staff capacity allocated	Environmental Department from the Council
Organizational and financial aspects:	Involvement of stakeholders and citizens	Internal: Meetings with the city council politicians and technicians. Preparation: meetings and presentations.
	Overall estimated budget	950,421.00 EURO

	Foreseen financing sources for the investments	Puigpunyent Council budget, european funds, diferent balear and spanish funds.
	Planned measures for monitoring and follow up	Implementation report every second year
Actions selected to be implemented within the first year after finalization of the SEAP	-Elaboration of a comparative public transport table with which to establish the fare system that better suits the needs of the public transport users. -Conducting an awareness campaign for minimizing the energy consumption in the domestic sector and in small business activities.	
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7. CONCLUSION

The activities and processes carried out in the Conurbant project was on one hand a clear process to orient new signatories to the Covenant of Mayors initiative by engaging them and convince them to sign the adhesion and to commit to the overall reduction of 20% of CO_2 emission according to the requirements, was a process of capacity building of different stakeholders related to climate change and its impact on the environment, on energy efficiency opportunities identification and improvements but not the least a process of networking to assure the interaction and communication between different parties in order to set up common targets to combat the effect on climate change by setting up projects, programs on energy efficiency on different sectors or field of actions depending on the status quo of the different cities.

During the project frameworks, all project partners were interested and highly involved to coop as much as possible new signatories to the Covenant of Mayors initiatives in 7 countries and 10 conurbation (1 conurbation in Bulgaria, 1 Conurbation in Croatia, 1 Conurbation in Cyprus, 2 Conurbations in Italy, 1 Conurbation in Latvia, 3 Conurbations in Romania and 1 Conurbation in Spain).

A major benefit for the new signatories as a whole was that they reach to new information's, they get to know the pool of EU policies and programs related to energy efficiency and they can add value to the global fight against climate change by starting the actions in a concentrated and uniformed way. Nevertheless one of the key message during several forums or workshops on SEAP development was that is crucial that policy makers, local responsible on city development, individuals or leaders of organization either they are institutions or private companies they have to start the change in behaviour and to act in an proactive and responsible manner toward sustainable development of the cities, region and country considering the three dimension of the sustainable development: economic, social and environment on the same quote.

The new signatores that signed the Covenant Mayors, developed a series of specific activities, starting with the support of the Conurbation towns, in view of drafting the Baseline Emission Inventory. Following the BEI establishment the Sustainable Energy Action Plans within a serious of stakeholder engagement process was the major target, containing actions which were quantitatively evaluated for energy and CO_2 reduction potential.

The Sustainable Energy Action Plans (SEAPs) were developed using the CoMo's Guidelines for SEAP and the templates from CoMo. The "peer to peer" approach among the project partners, and the support offered by the more experienced municipalities, has led to the completion of the proposed SEAPs.

The development of Sustainable Energy Action Plans focused mainly on those sectors identified as being responsible the largest CO_2 emissions with the highest impact, where local public authorities, municipalities and towns/villages of the conurbations may implement measures and actions to reduce emissions. Aspects such as communication, networking and citizen responsibility and involvement have also been taken into account concerning the actions that might be undertaken to reduce CO_2 emissions, energy consumption and to use renewable energy sources, while the residential sector has also been focused on as key sector in the development of the SEAPs. At the same time, actions and measures concerning adaptation to climate changes effects have a distinct place in the set of actions within each SEAP.

The Sustainable Energy Action Plans of each municipality or Conurbation towns contain objectives, targets, priorities, field of actions, responsibilities and information on budget and funding for the sets of proposed actions, so that the target of reducing the CO_2 emissions with at least 20% by the year 2020 could be reached. Also, the SEAPs establish the responsibilities for each action, the deadlines, the instruments and sources of funding and the proposed monitoring indicators.
In some conurbations, the 20% target was exceeded, considering a biggest option of reduction in some sectors, especially in RES.

During CONURBANT Project, were gathered 45 new signatories of Covenant of Mayors initiatives, besides other 7 municipalities and tonws that signed the adhesion before starting CONURBANT Project, which were co-opted in the project as targeted cities to be assisted in SEAP development. In addition to the new signatories during the project were supported also the 10 signatories which detain an adhesion to the Covenant of Mayors and they were also assisted for SEAP development. The overall support given by the project partner's team in each conurbation for the SEAP development for those assigned and targeted cities concluded with 52 SEAPs finished during the project life time

in 7 countries from which 50 SEAP were officially locally approved by the Local Decision makers and 2 SEAPs are in approval procedures. In Timişoara Conurbation another 8 SEAPs are in preparation.

The forecasted SEAP development of the project was 40 SEAPs, so the number was exceeded with 12 SEAPs.

An overall amount of 1,503,041,961 EURO, was estimated by 8 Conurbations, as investment to complete the implementation of SEAPs actions.

A number of 52 municipalities and towns with a population of 1,518,728 inhabitants, from 7 countries are committed for a clear CO_2 target reduction of 2,028,261.65 tones of CO_2.

A major role in the target achievement will have the serious engagement of the local government in the implementation phase of the SEAPs, which will consist in resource availability (financial and human resource) for the actions implementation as well as consistence monitoring of the steps in the actions each year.

BG

РЕЗЮМЕ на ПРОДУКТ № D 4.4 - Работен пакет WP 4
ДОКЛАД ЗА СЪБИРАНЕ НА ПДУЕР - Планове за действие за устойчиво енергийно развитие

В рамките на проект CONURBANT, 45 общини и градове от цяла Европа се присъединиха Конвента на кметовете, докато другите седем общини и градове се присъединиха преди стартиране на проекта.
Основният мотив беше колективния интерес да се открият различни пътища за намаляване на местното потребление на енергия и емисиите на CO_2 в различните общини, за да се подобрят условията на живот. Плановете за устойчиво енергийно развитие (ПДУЕР) бяха разработени с цел да се постигнат специфичните цели на Конвента на кметовете, тоест да се намалят емисиите на CO_2 с най-малко 20 %.
Серия от специфични дейности бяха изпълнени, за да се разработят качествени планове, като се започна с подкрепа на присъединените градове за изготвяне на инвентаризация на емисиите по базова линия, продължи се с организиране на енергийни форуми и накрая се изготвиха планове за устойчиво енергийно развитие.
Общо бяха разработени 52 плана за устойчиво енергийно развитие (ПДУЕР) в 10 конурбационни области в 7 държави с население над 1,5 милиона жители. Съгласно изготвените ПДУЕР, до 2020 г. ще се постигне намаление на емисиите с повече от 2 милиона тCO_2. За да се изпълнят мерките за намаляване на потреблението на енергия са необходими повече от 1,5 милиарда евро.
В момента, 50 ПДУЕР са официално одобрени с решения на местните общински съвети. По този начин плановете са се превърнали в политически ангажимент, неразделна част от икономическите, социалните и екологичните политики на съответните общини. Два ПДУЕР все още са в процес на одобрение.
Разработените ПДУЕР са фокусирани главно върху онези сектори, определени като отговорни за най-големия дял от емисиите на CO_2 в общините и в които местните власти имат правомощия: действия, които биха могли да бъдат предприети за намаляване на емисиите на CO2 и разхода на енергия, както и използване на възобновяеми енергийни източници. Жилищният сектор също е определен като ключов сектор в изготвените планове.
Аспекти като комуникация, работа в мрежа, гражданска отговорност и ангажираност бяха взети под внимание при разработването на ПДУЕР и дейностите по изпълнението им. В същото време, действията и мерките, свързани с адаптирането към въздействията за изменението на климата имат специално място в набора от действия в рамките на всеки ПДУЕР. По този начин, разработените планове и мерките в тях, които вече се прилагат в рамките на проект CONURBANT, са предпоставка за устойчиво развитие на общините и техните конурбационни общини, подписали Конвента на кметовете.
В доклада се прави преглед на съответните аспекти, свързани с разработените ПДУЕР във всички конурбационни общини по проект CONURBANT, включително специфичните аспекти на дългосрочните визии, цели, ключовите сектори, организационните и финансови аспекти, по-силната връзка с ангажиментите, поети от всички партньори, за да се постигнат основните цели на стратегията Европа 2020, относно "20/20/20 климатичните/ енергийни цели".

RESUMEN del Informe Nº D 4.4 - Work Package WP 4
INFORME SOBRE LA RECOPILACIÓN DE PAES – Planes de Acción para la Energía Sostenible

Dentro del marco del Proyecto CONURBANT, 45 municipios y ciudades en toda Europa se han adherido a la iniciativa del Pacto de Alcaldes, más 7 municipios y ciudades que ya habían firmado la adhesión antes del inicio del Proyecto CONURBANT.

El principal motor has sido el interés colectivo por encontrar diferentes vías para reducir el consumo energético local, mejorar el entorno en el que vivimos y reducir las emisiones de CO_2 en los diferentes municipios. Para poder alcanzar el objetivo principal del Pacto de Alcaldes, es decir, reducir en al menos un 20% las emisiones de CO_2, se han desarrollado Planes de Acción para la Energía Sostenible (PAES) en cada municipio.

Para desarrollar PAES cualitativos, se han seguido e implementado una serie de actividades específicas, empezando con el apoyo a las conurbaciones a la hora de preparar el Inventario de Emisiones de Referencia (IER), organizar forums sobre energía y redactar el PAES.

Se ha desarrollado un total de 52 PAES en 10 áreas conurbanas en 7 países cubriendo una población de más de 1,5 millones de habitantes. De acuerdo con el PAES, estas acciones permitirán la reducción de más de 2 millones de toneladas de CO_2 hasta el 2020. Se necesitará más de 1,5 billones de Euros para poder implementar las medidas necesarias para reducir el consumo de energía.

En estos momentos, 50 PAES han sido oficialmente aprobados dentro de las decisiones de los consejos municipales. Por lo tanto, los PAES se han convertido en un compromiso político, en una parte integrada en las políticas económicas, sociales y medioambientales de los respectivos municipios. Los 2 PAES restantes están bajo procedimiento de aprobación.

Los PAES desarrollados se han centrado principalmente en aquellos sectores identificados como los responsables de las mayores emisiones de CO_2 en los municipios y en los que las autoridades públicas locales pueden implementar acciones que deben ser llevadas a cabo para reducir las emisiones de CO_2 y el consumo energético y para usar fuentes de energía renovables. El sector residencial también ha sido identificado como un sector clave en el desarrollo de los PAES.

En el desarrollo de los PAES y en la implementación de las acciones, se han tenido en cuenta aspectos como la comunicación, el *networking* y la responsabilidad y participación de los ciudadanos. Al mismo tiempo, las acciones y medidas relativas a la adaptación de los efectos del cambio climático tienen un apartado específico dentro del conjunto de acciones que contiene cada PAES. De este modo, los PAES desarrollados y las medidas implementadas bajo el proyecto CONURBANT son un prerrequisito para el desarrollo sostenible de las ciudades y de sus conurbaciones, firmantes del Pacto de Alcaldes.

El informe repasa los aspectos relevantes relacionados con los PAES desarrollados en todas las áreas conurbanas del proyecto CONURBANT, incluyendo aspectos específicos de las visiones a largo plazo, objetivos, sectores clave y objetivos, aspectos organizativos y financieros, en estrecha conexión con el compromiso asumido por todos los socios, para alcanzar los objetivos de la Estrategia Europa 2020 en materia de clima y energía.

ΠΕΡΙΛΗΨΗ του παραδοτέου D 4.4 – Πακέτο Εργασιών 4
ΕΚΘΕΣΗ ΓΙΑ ΤΗ ΣΥΛΛΟΓΗ ΣΔΑΕ – Σχέδιο Δράσης Αειφόρου Ενέργειας

Στα πλαίσια του έργου CONURBANT, 45 δήμοι ανά την Ευρώπη υπέγραψαν την ευρωπαϊκή πρωτοβουλία του Συμφώνου των Δημάρχων με την οποία δεσμεύονται να επιτύχουν τη μείωση της τοπικής ενεργειακής κατανάλωσης, τη βελτίωση του περιβάλλοντος βίωσης και τη μείωση εκπομπών CO_2 σε διάφορους δήμους και κοινότητες. Με την δέσμευσή τους, οι υπογράφοντες του Συμφώνου σκοπεύουν να υπερβούν το στόχο της Ευρωπαϊκής Ένωσης για μείωση των εκπομπών CO_2 κατά 20% μέσω της εφαρμογής των Σχεδίων Δράσης Αειφόρου Ενέργειας (ΣΔΑΕ) σε κάθε δήμο.

Προκειμένου να αναπτυχθούν ποιοτικά ΣΔΑΕ, μία σειρά από συγκεκριμένες δραστηριότητες έχουν εφαρμοστεί, ξεκινώντας με την υποστήριξη των αστικών συγκροτημάτων με σκοπό τη σύνταξη Βασικής Απογραφής Εκπομπών και Σχεδίων Δράσης Αειφόρου Ενέργειας, και διοργανώνοντας φόρουμ ενέργειας.

Συνολικά αναπτύχθηκαν 52 ΣΔΑΕ σε 10 αστικές περιοχές σε 7 χώρες με πληθυσμό πέραν του 1.5 εκατομμύριου. Σύμφωνα με τα ΣΔΑΕ, θα μειωθούν άνω των 2 εκατομμυρίων τόνων διοξειδίου του άνθρακα έως το 2020, ενώ για την εφαρμογή των μέτρων μείωσης της ενεργειακής κατανάλωσης, θα χρειαστούν περισσότερα από 1.5 δισεκατομμύρια ΕΥΡΩ.

Επί του παρόντος, 50 ΣΔΑΕ έχουν επίσημα εγκριθεί με τις αποφάσεις των Τοπικών Συμβουλίων. Έτσι, οι ΣΔΑΕ αποτελούν μία πολιτική δέσμευση και ένα αναπόσπαστο μέρος των οικονομικών, κοινωνικών και περιβαλλοντικών πολιτικών των αντίστοιχων δήμων. Δύο ΣΔΑΕ βρίσκονται στο πλαίσιο της διαδικασίας έγκρισης.

Τα ΣΔΑΕ που έχουν αναπτυχθεί αφορούν κυρίως τους τομείς που έχουν αναγνωριστεί ως υπεύθυνοι για το μεγαλύτερο μέρος εκπομπών CO_2 στους δήμους και τα οποία οι δημόσιες τοπικές αρχές μπορούν να εφαρμόσουν: δράσεις που θα μπορούσαν να αναληφθούν για τη μείωση των εκπομπών CO_2 , την ενεργειακή κατανάλωση και τη χρήση ανανεώσιμων πηγών ενέργειας. Οι δράσεις έχουν επίσης επικεντρωθεί στον οικιστικό τομέα ο οποίος αποτελεί το βασικό τομέα για την ανάπτυξη των ΣΔΑΕ.

Κατά την ανάπτυξη των ΣΔΑΕ και την εφαρμογή των δραστηριοτήτων, έχουν επίσης ληφθεί υπόψη πτυχές όπως η επικοινωνία, η διαδικτύωση, η ευθύνη και η συμμετοχή των πολιτών. Ταυτόχρονα, οι δράσεις και τα μέτρα που αφορούν την προσαρμογή στις επιπτώσεις των κλιματικών αλλαγών έχουν μία ξεχωριστή θέση στο σύνολο των δράσεων σε κάθε ΣΔΑΕ. Με αυτό τον τρόπο, οι ανεπτυγμένες ΣΔΑΕ και τα μέτρα που έχουν ήδη εφαρμοστεί στα πλαίσια του Έργου CONURBANT αποτελούν προϋπόθεση για τη βιώσιμη ανάπτυξη των πόλεων και αστικών συγκροτημάτων – υπογράφοντες του Συμφώνου των Δημάρχων.

Η έκθεση εξετάζει τις πτυχές που σχετίζονται με τα ΣΔΑΕ που έχουν αναπτυχθεί σε όλα τα αστικά συγκροτήματα του Έργου CONURBANT, συμπεριλαμβανομένων των συγκεκριμένων πτυχών των μακροπρόθεσμων οραμάτων, στόχων και τομέων-κλειδιά, καθώς και των οργανωτικών και οικονομικών πτυχών, σε συνδυασμό με τη δέσμευση που έχει αναληφθεί από όλους τους εταίρους για την επίτευξη των μεγάλων στόχων της Ευρωπαϊκής

Στρατηγικής 2020, σχετικά με τα τους «20/20/20 κλιματικούς/ενεργειακούς στόχους».

SAŽETAK ostvareni rezultat D4.4. Radnog paketa WP 4
IZVJEŠTAJ O PRIKUPLJANJU SEAP-A – Akcijskih planova o energetski održivom razvitku

U sklopu projekta CONURBANT, 45 gradova i općina diljem cijele Europe pristupilo je inicijativi Sporazuma gradonačelnika (Covenant of Mayors). Glavni poticaj tome bio je zajednički interes različitih gradova i općina za pronalaskom raznih načina smanjenja potrošnje energije u lokalnim zajednicama, poboljšanja životnog okruženja stanovnika kao i smanjenja emisije CO2. Kako bi postigli specifični cilj Sporazuma gradonačelnika, odnosno smanjili emisiju CO2 za bar 20%, izrađeni su Akcijski planovi energetski održivog razvitka (SEAP) u svakom od tih gradova i općina.

U svrhu razvoja kvalitetnih SEAP-a provedena je serija različitih aktivnosti počevši od pružanja pomoći gradovima Konurbacije, a zatim i razvoja Registra osnovnih emisija (BEI), organiziranja lokalnih foruma i izrade nacrta SEAP-a.

Ukupno je izrađeno 52 SEAPa u 10 projektnih područja iz 7 različitih zemalja, pokrivajući prostor na kojem živi više od 1,5 milijun stanovnika. Ukupno smanjenje emisije CO2, a koje će se postići sukladno izrađenim SEAP-ima, bit će više od 2 milijuna tona CO2 do 2020. Više od 1.5 milijarde Eura bit će potrebno za provedbu mjera za smanjenje potrošnje energije.

U ovom trenutku, 50 SEAP-a je službeno potvrđeno od strane Gradskih i Općinskih vijeća. Time je SEAP postao politička obveza te sastavni dio ekonomskih, društvenih i ekoloških razvojnih ciljeva gradova i Općina koje ih donose. Dva SEAP-a još čekaju potvrdu Vijeća, ali je procedura već pokrenuta.

Izrađeni SEAP-i usredotočavaju se uglavnom na sektore najodgovornije za veliku emisiju CO2 u gradovima kao i na mjere koje će oni biti u mogućnosti primjeniti: aktivnosti koje bi mogle biti poduzete s ciljem smanjenja emisije CO2, smanjenja potrošnje energije i povećanja upotrebe obnovljivih izvora energije. Stambeni sektor je je naznačen kao ključni sektor djelovanja SEAP-a.

Pri izradi SEAP-a i mjera njegove primjene, uzeti su u obzir i aspekti poput međusobne komunikacije, umrežavanja, odgovornost građana i njihovo uključivanje. Isto tako, važno mjesto u mjerama provedbe svakog SEAP-a zauzimaju mjere prilagodbe posljedicama klimatskih promjena. Na ovaj način, razvijeni SEAP-i i mjere poduzete u okviru projekta CONURBANT predstavljaju preduvjet održivog razvoja gradova i njihovih konurbacijskih partnera, potpisnika Sporazuma gradonačelnika.

Izvješće daje osvrt na važne aspekte izrade SEAP-a u cijelom projektnom području projekta CONURBANT, uključujući i određene aspekte dugoročnih vizija, ciljeva, ključnih sektora i ciljanih skupina, organizacijskih i financijskih aspekata, a sve u čvrstoj svezi s obvezama koje su svi partneri preuzeli, a to je postići glavne ciljeve Strategije Europe 2020 koji se odnose na “20/20/20 klimatske/energetske ciljeve”.

Deliverable D 4.4 - Work Package WP 4
RELAZIONE SULLA RACCOLTA DEI PAES
Piani di Azione per l'Energia Sostenibile

Con il del progetto CONURBANT, 45 comuni in Europa hanno fatto il loro ingresso nell'iniziativa del Patto dei sindaci . La principale motivazione che a spinto a tale azione è stato l'interesse collettivo nell'individuare percorsi per ridurre il consumo locale di energia, nel migliorare l'ambiente di vita e nel ridurre le emissioni di CO_2 su scala locale/comunale. In conseguenza all'adesione all'iniziativa ed al fine di raggiungere l'obiettivo specifico del Patto dei Sindaci, ossia la riduzione di almeno il 20 % delle emissioni di CO_2 al 2020, ogni Comune aderente ha sviluppato il proprio Piano d'Azione per l'Energia Sostenibile (PAES).
Per realizzare PAES di qualità il progetto CONURBANT ha realizzato una serie di attività specifiche, a cominciare dal supporto e la formazione alle città delle conurbazioni in vista della preparazione dell'Inventario di Base delle Emissioni (BEI), fino alla organizzazione di forum energetici locali propedeutici alla redazione dei PAES.
In totale sono stati sviluppati ed approvati 52 PAES in 10 aree urbane di 7 paesi, che coprono una popolazione di oltre 1,5 milioni di abitanti. I PAES approvati porteranno alla riduzione di oltre 2 milioni di tonnellate di CO_2 entro il 2020. Oltre 1,5 miliardi di Euro saranno necessari per attuare le misure atte a ridurre il consumo energetico previste.
I PAES sono stati ufficialmente approvati con Deliberazioni dei Consigli Comunali, diventando perciò un impegno politico, parte integrante delle politiche economiche, sociali e ambientali dei rispettivi comuni.
I PAES sviluppati concentrano in prevalenza le proprie azioni su quei settori individuati come responsabili della quota maggiore di emissioni di CO_2 nei Comuni e che le autorità pubbliche locali possono intaccare direttamente con le proprie azioni/attività istituzionali: azioni volte a ridurre le emissioni di CO_2 sia attraverso il calo del consumo di energia che con l'introduzione e l'utilizzo di una maggiore quota di fonti di energia rinnovabile. Il settore residenziale è stato considerato in particolare come elemento chiave nello sviluppo dei PAES.
Nello sviluppo e l'implementazione dei PAES, aspetti quali la comunicazione, il networking, il coinvolgimento attivo dei cittadini sono fortemente presenti. Allo stesso tempo, azioni e misure riguardanti l'Adattamento ai cambiamenti climatici in effetti hanno un posto specifico rispetto alle azioni di mitigazione – vero focus dei PAES.
Il presente documento esamina gli aspetti rilevanti relativi ai PAES sviluppati con il progetto IEE CONURBANT, compresi gli aspetti specifici di visione a lungo termine, gli obiettivi, i settori chiave e gli aspetti organizzativi e finanziari: tutti elementi in forte connessione con l'impegno assunto da tutti i partner nel contribuire a realizzare i grandi obiettivi della strategia Europa 2020 ed il pacchetto 20-20-20.

KOPSAVILKUMS

Conurbant projekta ietvaros, ko līdzfinansē Eiropas Komisijas programma "Saprātīga enerģija Eiropai", Pilsētu mēra pakta iniciatīvai pievienojās 45 Eiropas pašvaldības, kā arī 7 pašvaldības un pilsētas, kuras bija parakstījušas pievienošanās formu pirms tika uzsākts CONURBANT projekts un tai skaitā 5 Latvijas pašvaldības – Salaspils, Ikšķile, Ogre, Ķegums un Lielvārde. Galvenais virzītājspēks šādai rīcībai bija kopējā interese meklēt dažādus risinājumus, kā pašvaldībās samazināt enerģijas patēriņu, uzlabot dzīves telpu un tās kvalitāti, kā arī samazināt CO2 emisijas. Lai sasniegtu Pilsētu mēra pakta izvirzītos mērķus, t.i. līdz 2020.gadam samazināt CO2 par 20%, katrai pašvaldībai ir jāizstrādā savs Ilgtspējīgas enerģijas rīcības plāns (IERP). Latvijā kopā Pilsētu mēra akta iniciatīvai ir jau pievienojušās 19 Latvijas pašvaldības.

Lai izstrādātu kvalitatīvus rīcības plānus, pašvaldībās tika novērtēti vēsturiskie un esošie siltumenerģijas un elektroenerģijas patēriņi un ar to saistītās emisijas, kā arī noteiktas emisijas no transporta sektora. Balstoties uz iegūtajiem rezultātiem, pašvaldībās tika organizēti arī enerģijas forumi, uz kuriem tika aicinātas visas iesaistītās puses (iedzīvotāji, uzņēmēji, pašvaldības pārstāvji un citi). Foruma galvenais mērķis bija kopā diskutēt par attiecīgās pašvaldības vajadzībām un ilgtermiņa mērķiem. No enerģijas forumā iegūtajām atziņām un ekspertu novērtējuma un zināšanām tika tālāk definētas galvenās rīcības, lai samazinātu enerģijas patēriņu un CO2 emisijas. Latvijā viens no primārajiem pasākumiem ir energopārvaldnieka pozīcijas izveide pašvaldībās. Tas skaidrojams ar to, ka ļoti bieži pašvaldībās iztrūkst enerģijas uzskaites sistēmas, kas ļautu novērtēt turpmākās iespējas.

Kopā Conurbant projekta ietvaros tika izstrādāts 52 Ilgtspējīgas enerģijas rīcības plāni 10 pilsētvides teritorijās, kur kopā dzīvo 1,5 miljoni iedzīvotāju. Balstoties uz izstrādātajiem rīcības plāniem, līdz 2020.gadam tiks samazinātas vismaz 2 miljoni tonnas CO2 emisiju, bet šo rīcību veikšanai būs nepieciešami vairāk nekā 1,5 miljardi eiro. Latvijas piecās pašvaldībās, kur kopējais iedzīvotāju skaits 2013.gadā bija 82 750, līdz 2020.gadam tiks panākts gandrīz 20 tūkst. tonnu CO2 emisiju samazinājums, kas lielākoties tiks nodrošināts, pateicoties vienkāršiem energoefektivitātes pasākumi un atjaunojamas enerģijas plašākai izmantošanai siltumenerģijas ražošanā.

Šobrīd 50 pašvaldības ir jau apstiprinājušas un uzsākušas rīcības plānu ieviešanu savās pašvaldībās. Oficiāli apstiprinot plānus, pašvaldības ir apņēmušās ieviest atbildīgu vides, ekonomisko un sociālo politiku, kas skar tieši enerģijas gala patērētājus un sabiedrību kopumā.

SUMARUL EXECUTIV al Documentului Livrabil nr.D4.4 – Pachetul de Activități 4
RAPORTUL PRIVIND COLECTAREA PAED –
Planurile de Acțiune pentru Energia Durabilă

În cadrul Proiectului CONURBANT, 45 municipalități şi oraşe noi semnatare ale Convenției Primarilor au desfăşurat o serie de activități specifice, începând cu suport acordat localităților din conurbație, în vederea elaborării Inventarelor de Referință a Emisiilor, pregătirii Planurilor de Acțiune pentru Energia Durabilă (PAED), pe baza strategiei formulate şi pregătirea autorităților publice locale în vederea implementării acestor documente strategice.

În urma activităților desfăşurate în cadrul forumurilor locale pentru energie şi a grupurilor de lucru organizate în municipalitățile şi localitățile conurbațiilor, acestea au dezvoltat PAED, grație abordării de tip „peer to peer" între partenerii proiectului, schimbul de experiență între parteneri şi suportul acordat de către municipalitățile mai experimentate.

Proiectul CONURBANT a făcut posibilă dezvoltarea unui număr de 52 de Planuri de Acțiune pentru Energia Durabilă în cele zece conurbații, pentru o populație de peste 1,5 milioane de locuitori din şapte țări europene, cu o țintă de reducere a emisiilor de CO_2 de peste 2 milioane tone, până în anul 2020. Peste 1,5 miliarde de EURO, vor fi angajate pentru implementarea acțiunilor şi măsurilor de reducere a consumurilor de energie.

În acest moment, un număr de 50 PAED-uri au fost deja aprobate prin hotărâri ale autorităților locale, acestea devenind un angajament politic, parte integrantă a politicilor de dezvoltare economică, socială şi de mediu a partenerilor şi beneficiarilor Proiectului CONURBANT. Două PAED se află în procedura de aprobare.

Dezvoltarea Planurilor de Acțiune pentru Energia Durabilă a vizat în principal sectoarele identificate ca fiind responsabile cu cele mai mari emisii de CO_2, în care autoritățile publice locale, municipalități şi localități ale conurbațiilor, pot implementa măsuri şi acțiuni de reducere a emisiilor. Nu au fost neglijate nici aspectele legate de comunicare, relaționare şi responsabilizare a cetățenilor, privitoare la acțiunile care trebuie întreprinse în vederea reducerii emisiilor de CO_2, reducerea consumurilor de energie şi utilizarea surselor de energie regenerabilă, sectorul rezidențial fiind de asemenea vizat ca sector cheie în elaborarea PAED. Totodată, acțiuni şi măsuri privitoare la adaptarea la efectele schimbărilor climatice ocupă un loc aparte în setul de acțiuni ale fiecărui PAED.

Planurile de Acțiune pentru Energia Durabilă conțin obiective, ținte, priorități de acțiune, sectoare de acțiune şi informații privind finanțarea seturilor de acțiuni propuse, astfel încât să se atingă ținta de reducere cu cel puțin 20% a emisiilor de CO_2 până în anul 2020.

PAED-urile includ ținte specifice pentru fiecare sector în parte, în domeniile în care municipalitatea sau localitățile conurbației pot interveni, atât în calitate de consumator şi furnizor de servicii, cât şi în rolul de autoritate de planificare, dezvoltare şi reglementare: clădiri municipale şi alte facilități, transport şi mobilitate, iluminat public, producție locală de energie, încălzire/răcire, planificare urbană şi utilizarea terenurilor, achiziția de bunuri şi servicii, managementul deşeurilor, spații verzi, comunicare şi implicarea cetățenilor şi a părților interesate. De asemenea, municipalitățile şi localitățile conurbației au înțeles că, dezvoltarea PAED-urilor trebuie să fie abordată şi din perspectiva de consiliere, motivare şi rolul de model al autorității publice locale. Nu s-a neglijat nici rolul municipalităților şi localităților conurbațiilor de producători şi funizori ai unor servicii publice şi utilități.

Astfel PAED-urile dezvoltate şi măsurile deja implementate în cadrul Proiectului CONURBANT constituie o premisă pentru dezvoltarea durabilă a municipalităților şi localităților conurbațiilor, semnatare ale Convenției Primarilor.

Raportul prezintă succint PAED-urile dezvoltate la nivelul fiecărei conurbații, inclusiv aspecte cum ar fi: viziunea pe termen lung, obiective, sectoare cheie şi ținte, aspecte organizaționale şi financiare, în strânsă corelație cu angajamentul asumat, de atingere a obiectivelor majore ale Strategiei Europa 2020 privind energia şi clima.