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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

Selection of most relevant actions and time planning in the frame of CONURBANT Project

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1. INTRODUCTION

The Covenant of Mayors advises the actions and measures of local authorities within the jurisdiction of the public authorities. Consequently, the signatories of CoM take measures in the exercise of all of their possible functions:

- Consumer and service provider;
- Planner, investor and regulator;
- Consultant, motivator and model;
- Manufacturer and supplier.

During the CONURBANT Project, municipalities and conurbation towns have the task of selecting the relevant three actions to be implemented within the first year after the finalisation of their SEAP. The selection was based on:

- Feasibility and financing opportunities;
- Foreseen cut of CO_2 emissions;
- Relevance to the municipal strategy.

To accomplish this task, the SEAP implementation teams/units in each municipality and conurbation town, together with the leadership at the highest level of the local authority established the most appropriate actions that will be implemented within the CONURBANT project. To this end, necessary efforts and actions have been taken to identify the required amounts of investments and sources of funding.

In order to select these actions, Tutoring Municipalities provided guidance to the Trainee Municipalities and their conurbation towns to compensate for the latter's lack of experience. In selecting the actions, where very small villages are concerned, an action implemented jointly by multiple locations was considered.

Proposals made by municipalities and communities of each conurbation address various sectors of the SEAP:

- Municipal buildings, equipment / facilities;
- Tertiary (non - municipal) buildings, equipment / facilities;
- Residential buildings;
- Municipal public lighting;
- Urban road transportation: municipal fleet (e.g. municipal cars, waste transportation, police and emergency vehicles, etc.), public transportation, private and commercial transportation;
- Mobility – cycling paths, cycling infrastructure;
- Energy production; solar thermal installation, heating, cooling and electricity production, Photovoltaic electricity generation - e.g. PV, geothermal heat pumps, etc.;
- Land urban planning – e.g. urban mobility planning;
- Agriculture, green spaces and promotion of energetic crops;
- Waste and water management;

The following chapter will present the selected actions and foreseen/estimated results in the SEAPs developed within the CONURBANT Project, in all partners Municipalities and Conurbation towns.

2. SELECTION OF THE MOST RELEVANT ACTIONS AND TIME PLANNING IN MUNICIPALITIES AND CONURBATION TOWNS

After Baseline Emission Inventories development in municipalities and conurbation towns, the results were analysed in the local energy forums and working groups attended by both trained personnel within town halls, politicians and local decision makers and by companies, representatives of local businesses, large size companies / SMEs, associations, clusters and energy agencies, representatives of specialized universities, citizens and other stakeholders, etc.

Baseline Emission Inventories evaluation revealed on this occasion the directions in which local authorities should focus, in terms of reducing energy consumption, increasing energy efficiency and use of energy from renewable sources. Municipalities and conurbations towns were encouraged to address potential actions and measures in all sectors of SEAP, following that the final selection should be based on financial opportunities and on their feasibility of reducing CO_2 emissions and on the relevance of selected actions related to municipal strategy.

Study visits and the "peer-to-peer" approach between tutor municipalities and trained municipalities led to the shaping of the first measures that can be implemented at municipality level, all the knowledge and information received being forwarded to localities of the conurbations.
Ever since the SEAP preparation stage, municipalities and conurbation towns were encouraged to prepare actions and projects that could be implemented during the first year of the development of the SEAPs.
For this reason, good practices existing at European level has been analysed. Based on peer-to-peer approach, by sharing experiences and best practices between municipalities and towns as well as by sharing the solutions found to certain local problems, the outlining of potential actions and projects that can be addressed locally has been facilitated. Tutor Municipalities had an important role in guiding trainee municipalities and the localities from their conurbation through locally organized meetings and presentations on the actions, projects and investments that have already been implemented.

By CONURBANT Project, each municipality and conurbation town aim at implementing at least two actions in the first year after the completion of the SEAP. These actions will not be financed under the project, so that, from at least three actions selected, the municipalities should find and select the best financial instruments.

This document presents the results of the identification and selection process of the two measures to be implemented by partners in their municipalities and in the localities of the conurbation.
In the frame of Work Package 5 - Implementation of the SEAPs, Trainee and Tutor Municipalities and Conurbation towns commit to the local Implementation of actions that will lead to CO_2 reduction, energy savings and the use of Renewable Energy sources.
The requirement of CONURBANT Project is to select at least 96 actions.

During the unfolding of CONURBANT Project, municipalities and conurbation towns analysed the portfolio of initiatives, actions and projects, which were evaluated based on the degree of maturity in close connection with their financing possibilities.
The proposed projects, actions or activities were different - small, medium and large-scale investment projects, important both in terms of funding and in terms of reducing CO_2 emissions.
For this purpose, existing financial instruments were used, based on opportunities and guidelines on financing of investments in energy efficiency and the use / production of energy from renewable sources, developed by IEE earlier projects.

In the entire context of the selection of actions for implementation, partners also considered the perspective of developing larger projects in the preparation of proposals for the Technical Assistance ELENA Facility, one of the objectives of the CONURBANT Project being that at least five partner tutor-municipalities and trainee should submit a proposal for funding. In this way, considering a minimum investment triggered of about 75 million EUR per municipality, by the end of the project, the partnership should prepare investments for a total of at least 375 million EUR.

During the work of selecting the most relevant actions, the project technical partners have played an important role.

In a first assessment, most of the proposed measures targeted energy efficiency and RES in:

- Municipal buildings sector;
- Residential buildings sector;
- Public lighting sector;
- Transport and urban mobility sectors;
- Green spaces sector;
- The sector of energy production from renewable sources.

The work of selecting the most relevant actions constituted a task that was conducted over a longer period, subject to centralizing according to the extent of their crystallization, to the estimate of the needed financial resources, the identification of financial resources, of the expected results in terms of savings, reduced CO_2 emissions, and envisaged renewable energy.
Regarding the time planning, majority of the proposed measures will be implemented within the first year after SEAPs approval. Just in few cases, action implementation is still in strong connection to the financing source approvals or evaluation processes.

In the following subchapter will be presented the selected actions in each conurbation in part and, in Conclusion part, the estimates regarding the amount of investment and the expected results – CO_2 reduction, energy savings and RES.

2.1 COUNTRY: BULGARIA

CONURBATION: VRATSA CONURBATION

The following actions have been selected for implementation:

MUNICIPALITY OF VRATSA:

1. Energy audits of buildings, municipal ownership - 17 numbers of energy audits;
2. Reconstruction, maintenance and implementation of energy efficiency measures in educational institutions - kindergartens, primary and secondary schools - Energy efficiency in Kindergarten № 1 “Brezichka”;
3. Construction of public green area in housing estate "Dabnika";
4. Rehabilitation and renovation of public park "Hijata";
5. Construction of park zone in the region of Medkovsko dere from the Boulevard "Vtori Yuni" to "Vasil Kanchov";
6. Feasibility Study for integrated urban transport;
7. Preparation of working draft for the integrated urban transport (the construction of new bus routes. Preparation of working draft for upgrading / renovation of existing contact network and reconstruction of routes trolleybus network - Vratsa. 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);
8. Construction of stationary photovoltaic power plant in the town of Vratsa area Kolomanovo with power of 15 MW;

9. Construction of stationary photovoltaic power plant in the town of Vratsa area Kolomanovo with power of 10 MW;

KOZLODUY TOWN

1. Energy efficiency improvements in public buildings: Administrative building "Mayoralty" - the village Kriva bara;
2. Energy efficiency improvements in public buildings: Administrative building "Mayoralty" - the village Butan;
3. Energy efficiency improvements in public buildings: Kindergarten „Parvi Juni" – the village Butan;
4. Energy efficiency improvements in public buildings: Sport Hall „Hristo Botev";
5. Energy efficiency improvements in public buildings: Kindergarten „Zvanche";
6. Energy efficiency improvements in public buildings: Primary School "Vasil Aprilov" (new part of the school)– village Harlets;
7. Energy efficiency improvements in public buildings: Kindergarten „Slanchitse";
8. Energy efficiency improvements in public buildings: Secondary school „Hristo Botev" (basic building);
9. Energy efficiency improvements in public buildings: Secondary school „Kiril i Metodii";
10. Energy efficiency improvements in public buildings: Community center "Hram-pametnik Hristo Botev 1879";
11.Energy efficiency improvements in public buildings: Community center „Iakim Despotov" – village Glojene;
12. Energy efficiency improvements in public buildings: Kindergarten "Radost";
13. Energy efficiency improvements in public buildings: Primary school "Vasil Aprilov"-the old building – village Harlets;

MEZDRA TOWN:

1. Development of mechanisms for public-private partnership for construction of RES installations on the territory of the municipality;
2. Creation of energy informational base for installed renewable energy capacity in the territory of the municipality:

MIZIA TOWN:

1. Energy efficiency measures in schools and kindergartens in the Municipality Mizia - School "Otec Paisii" village Sofronievo, School "Hristo Botev" village Krushovitsa, Kindergarten "Detelina" Mizia, Kindergarten "Kalinka" village Lipnitsa;
2. Spatial planning, procurement and interaction with civil society;

Oryahovo TOWN:

1. Thermal insulation, replacement of joinery and installation of solar systems in Kindergarten "Druzhba";
2. Thermal insulation, replacement of joinery and installation of solar systems in Kindergarten "Prolet";
3. Insulation, window replacement and installation of solar systems in Kindergarten "Mir" village Selanovtsi;

KRIVODOL TOWN:

1. Implementation of energy efficiency measures: Provide efficient and effective educational infrastructure in the municipality Krivodol by implementing energy efficiency measures in Primary school "Vasil Levski" - village Rakevo;
2. Rehabilitation and reconstruction of the road network in the Municipality Krivodol - Georgi Dimitrov street, Osvobozhdenie street, Dimitar Blagoev street.

In total, in Municipality of Vratsa and Conurbation Towns have selected 31 actions, in different sectors of the SEAPs: energy efficienncy in public buildings, public lighting, energy audits and certifications, rehabilitation/reconstruction and modernization of public buildings and public areas, sustainable planning, RES – PV plants, green spaces, rehabilitation and modernisation of infrastructure (roads);

2.2. COUNTRY: CROATIA

CONURBATION: OSIJEK CONURBATION

The following actions have been selected for implementation:

MUNICIPALITY OF OSIJEK:

1. Modernization of lighting systems in 20 classrooms in 2 primary schools (Lj. Gaj and I. Filipović);
2. Thermal insulation of roofs and shelling of 15 public buildings;
3. Energy audits and energy certification of schools, kindergartens and other public buildings;
4. Modernication of heating system and boiler room in two primary schools (Lj. Gaj and I. Filipović)-switch to gas and biomass as fuel for heating;
5. Replacement of outdated lighting fictures with new enery efficient and ecologically acceptable luminaires;

MUNICIPALITY OF BELI MANASTIR:

1. Construction of bicycle paths - promotion of EE mobility;
2. New energy efficient public lighting system - 1,5 km.;
3. Smart city grid - EE info panels;

MUNICIPALITY OF BELIŠĆE:

1. Construction of bicycle paths - promotion of EE mobility;
2. Reconstruction of public lighting system;
3. Conducting energy audits in public building;

MUNICIPALITY OF DONJI MIHOLJAC

1. Construction of bicycle paths - promotion of EE mobility;
2. Conducting energy audits in public buildings;
3. Reconstruction of public lighting system;
4. Energy efficient refurbishment of kindergarten;

MUNICIPALITY OF VINKOVCI:

1. Energy audits of public buildings;
2. Incentives for EE refurbishment in private households;
3. Development of study on efficiency of heating systems in the city;
4. Construction of bicycle paths - promotion of EE mobility (30 km.);

In total, in Municipality of Osijek and Conurbation towns have selected 19 actions, in different sectors of the SEAPs: EE in public buildings, public lighting, energy audits and energy certifications, cycling infrastructure and mobility, EE in the public heating, incentives for EE refurbishment in private households;

2.3. COUNTRY: CYPRUS

CONURBATION: LIMASSOL CONURBATION

The following actions have been selected for implementation:

MUNICIPALITY OF LIMASSOL:

1. Street Lighting Replacement of Lamps;
2. Tree planting;

KATO POLEMIDIA TOWN:

1. Street Lighting Replacement of Lamps;
2. Tree planting;

MESA YITONIA TOWN:

1. Street Lighting Replacement of Lamps;
2. Tree planting;

YERMASOYIA TOWN:

1. Street Lighting Replacement of Lamps;
2. Tree planting;

In total, the Municipality of Limassol and the Conurbation Towns have selected 8 actions, in the following sectors of the SEAPs: energy efficiency in public lighting and green spaces;

2.4. COUNTRY: ITALY

CONURBATION: PADOVA CONURBATION

The following actions have been selected for implementation:

MUNICIPALITY OF PADOVA:

1. Cycling Plan 2012;

RUBANO TOWN:

1. PV plants installed by Public Administration on Public Buildings;
2. Energy efficiency measures on the School "Pascoli" (insulation and windows replacement);
3. PV plants installation in private sectors;

VIGONZA TOWN:

1. Improvement of the recycling waste system;
2. Energy efficiency measures on public lighting system;
3. Solar thermal plants installation in private sectors (residential sector);

PONTE SAN NICOLÒ TOWN:

1. Renewable electricity purchase for the consumption of energy in public administration (electricity consumption in public buildings and public lighting);
2. PV plants in private sectors;
3. Energy efficiency measures in public buildings (insulation, windows replacement, heating plant replacement);

DUE CARRARE TOWN:

1. Energy efficiency on public lighting (LED technology system installation);
2. PV plants installation in private secttors (Residential, Commercial, Agricolture, Industrial);

In total, in Municipality of Padova and Conurbation Towns have selected 12 actions, in different sectors of the SEAPs: energy efficiency in public and private buildings, public lighting, increase of energy efficiency in private sector, RES – PV plants and solar thermal plants in private sector, waste management, mobility and cycling planning;

2.5 COUNTRY: ITALY

CONURBATION: VICENZA CONURBATION

The following actions were selected for implementation:

MUNICIPALITY OF VICENZA:

1. Energy Efficiency of heating plant in public buildings;
2. Geothermal plant on Basilica Palladiana;
3. Energy Efficiency on private buildings;
4. Vicenza Action E - PV plants in Private Sectors 2012-2014;
5. Planting of 2,600 trees in 2012;

MONTICELLO TOWN:

1. Green energy procurement for the Public Administration electricity consumption;
2. Tree Planting;
3. Drinking Water distributor for citizens;
4. Separate Waste collection;
5. Energy efficiency on public lighting;

SOVIZZO TOWN:

1. PV plant on Municipality Building;
2. PV plants in private sectors 2012-2013;
3. Energy efficiency on public lighting;
4. Cycle paths;
5. House-schools bus service;
6. Tree planting;
7. Separate waste collection;

8. Drinking Water Distributor for citizens;
9. Public Buildings insulation;
10. New cycle paths;
11. Quality Management System UNI ISO 9001;

ARCUGNANO TOWN:

1. PV plant on Ugo Foscolo Primary School;
2. PV plants in private sectors 2012-2013;
3. House-schools bus service;
4. Energy efficiency on private buildings sector;
5. Tree planting;
6. Energy Efficiency on Public Buildings: heating plants substitution;

CREAZZO TOWN:

1. Green energy procurement for the Public Administration electricity consumption;
2. PV plants in private sectors 2012-2013;
3. Solar Thermal energy production in private sectors;
4. Energy efficiency on public buildings, heating plants, insulation and windows substitution;
5. Energy Efficiency on public lighting;
6. Energy efficiency on private buildings in 2012;
7. Cycle Paths;
8. From house to schools "pedibus service";
9. Tree planting;
10. Drinking Water Distributor for citizens;
11. Separate waste collection;

In total, in Municipality of Vicenza and Conurbation Towns have selected 38 actions, in different sectors of the SEAPs: energy efficienncy in public and private buildings, public lighting, increase of energy efficiency in private sector, RES – PV plants and solar thermal plants in private sector, geothermal energy, waste management, grean spaces, transport – sustainable transport for schools, water – water distritors for public spaces, cycle infrastructure development;

2.6. COUNTRY: LATVIA

CONURBATION: SALASPILS CONURBATION

The following actions have been selected for implementation:

MUNICIPALITY OF SALASPILS:

1. Improvement of street ligthing;
2. Increase of EE in public buildings in Salaspils;

IKŠĶILE TOWN:

1. Improvement of street ligthing;
2. Increase of EE in public buildings;

LIELVĀRDE TOWN:

1. Improvement of DH network;
2. Increase of EE in public buildings;

OGRE TOWN:

1. Improvement of street ligthing;
2. Increase of EE in public buildings;

ĶEGUMS TOWN

1. Energy efficiency in heat recovery system;
2. Energy efficiency in public buildings;

In total, in Municipality of Salaspils and Conurbation Towns have selected 10 actions, in different sectors of the SEAPs: energy efficienncy in public buildings, public lighting, increase of energy efficiency in the district heating network;

2.7. COUNTRY: ROMANIA

CONURBATION: ALBA IULIA CONURBATION

MUNICIPALITY OF ALBA IULIA:

1. Thermal rehabilitation of three blocks of flats from the downtown area;
2. Rehabilitation of Tolstoi district: streets = 840 m, walkways and bicycle lanes = 1,657.5 m, platform + parking places = 11,370 sqm.;
3. Modernization of National Road 1-E 81 (the entrance in Alba Iulia from North): streets – 2,790 m., walkways – 5,580 m., bicycle lanes -2,790 m., green areas – 3,410 sqm., public lighting 5,580 m.;
4. Modernization of National Road 74 (the entrance in Alba Iulia from West): streets – 33,619 sqm, bicycle lanes – 6,466 sqm, walkways – 7,960 sqm, green areas – 6,618 sqm.;
5. Rehabilitaton of historical center, Vauban fortification - access roads, public lighting and urban furniture;
6. Upgrading and rehabilitation of sewerage system in Alba Iulia in length of 37,135 m, 10 pumping stations and 2,175 m. connections;
7. Concession of public lighting service for a period of 10 years;
8. Rehabilitation of public lighting Fortress and Central Area;
9. Rehabilitation the zonal public lighting system - smart lighting (900 lighting fixtures of 5,000);
10. Joining to AIDA - Intercommunity Development Association for Public Transport. (three years contribution 2013-2015).

CIUGUD TOWN:

1. Thermal rehabilitation of Hăpria Cultural Center building;
2. Thermal rehabilitation of Limba Cultural Center building;
3. Thermal rehabilitation of Ciugud public administration building;
4. Joining to AIDA - Intercommunity Development Association for Public Transport;
5. Seusa Public lighting rehabilitation, powered by wind farm combined with PV;

BERGHIN TOWN:

1. Thermal rehabilitation of Berghin Cultural Center building;
2. Public lighting rehabilitation;
3. Thermal and lighting system rehabilitation of Berghin school building;
4. Thermal and lighting system rehabilitation of Ghirbom school building;

IGHIU TOWN:

1. Thermal rehabilitation of Ighiu Cultural Center building;
2. Public lighting rehabilitation;
3. Construction of new building for Elderly Daycare Center;
4. Modernization of 9.85 km (35%) transport infrastructure in Ighiu, Bucerdea Vinoasa, Sard villages - Joining to AIDA - Intercommunity Development Association for Public Transport.

SÎNTIMBRU TOWN:

1. Thermal rehabilitation of Sîntimbru public administration building;
2. Thermal rehabilitation of Sîntimbru Fabrica Cultural Center building;
3. Construction of new building for Elderly Daycare Center;
4. Thermal rehabilitation of Totoi Cultural Center building;
5. Joining to AIDA - Intercommunity Development Association for Public Transport;

In total, in Municipality of Alba Iulia and Conurbation Towns have selected 28 actions, in different sectors of the SEAPs: energy efficiency in public buildings, public lighting, modernisation and rehabilitation of infrastucture (roads), transport;

2.8. COUNTRY: ROMANIA

CONURBATION: ARAD CONURBATION

The following actiones were selected for implementation:

MUNICIPALITY OF ARAD:

1. Purchase of new energy efficient trams and modernisation of tram depot;
2. New bicycle lanes along the river Mureș;
3. Bicycle lanes in the City of Arad;
4. Energy efficiency in public and private buildings;
5. Thermal rehabilitation of apartment buildings;
6. Rehabilitation of the thermal energy transport and distribution network (district heating) in Arad and conversion of thermal substation in Aradul Nou District;
7. Expansion of public lighting network in the municipality of Arad and implementation of photovoltaic panels for partial supply;
8. Development of green areas – modernisation of parks ;
9. Improvement of water supply and sewerage network;
10. Traffic improvement through roads and bridges upgrade;

TOWN OF NĂDLAC:

1. Energy efficiency in schools – Modernisation, extension and new equipment for School Josef Gregor Tajovsky, Nădlac and Feasibility Study for rehabilitation of School no. 2 Nădlac;
2. Improvement of heating system for Kindergarten no. 2;
3. Development of bicycle lanes;
4. Selective waste collection system development;
5. Heavy traffic system regulation on public and private roads (Local Council Resolution no.77/2013 concerning heavy traffic and parking restrictions);
6. Solar pannels for private homes – Green House Programme;
7. Modernisation and development of new thermal energy production facility by using renewable resources from agriculture (biomass);
8. Rehabilitation of the geothermal agent distribution network that supplies public institutions;

TOWN OF LIPOVA:

1. Rehabilitation of street infrastructure and utility services (water supply, sewerage, green areas and roads);
2. Street lighting upgrade in residential area;
3. Public lighting upgrade in 5 town parks and squares;
4. Development of green areas;
5. Thermal rehabilitation of school and boarding house Sever Bocu;
6. Bicycle lanes from Lipova town to Lipova Bathing Resort;
7. Installation of photovoltaic pannels on public buildings (5 schools, 4 kinderhgartens, 1 hospital);
8. Installation of solar pannels on public buildings;
9. Traffic restrictions on Gojdu street;
10. Green areas development;

TOWN OF PECICA:

1. Water supply and wastewater network extension and upgrade;
2. New lighting systems in 11 schools;
3. Solar pannels for water supply in private homes;
4. Development of new bicycle lanes and distribution of bicycles for public institutions;
5. Road connection with Highway A1;
6. Traffic improvement by building of a new bridge over the river Mureș;
7. Traffic improvement by building a new bridge over the river Mureş;
8. Green areas development, trees planting;
9. Selective waste collection system;

TOWN OF SÂNTANA:

1. Waste collection and disposal improvement by closing the town's landfill and developing 8 selective waste collection zones;
2. Thermal rehabilitation of 2 public schools;
3. Street lighting extension and modernisation;
4. Gas supply network extension;
5. Modernisation of water plant and extension of water supply network;
6. Photovoltaic pannels on public buildings – kindergartens;
7. Solar pannels on private homes;
8. Bicycle lanes development;

A total number of 45 actions have been selected by the Municipality of Arad and the Conurbation towns Nădlac, Lipova, Pecica and Sântana, in different sectors of the SEAP: public transport, roads and traffic, cycling infrastructure, energy efficiency in public and private buildings, district heating, street lighting, waste collection, water supply and sewerage, green areas,

2.9. COUNTRY: ROMANIA

CONURBATION: TIMIŞOARA CONURBATION

During SEAPs implementation activities in Timişoara Conurbation, a particular importance was given to the selection by Mayors and Project Implementation Units form Town Halls level, actions that wil be implemented within the year after finalisation of SEAP.
In general, smaller communities face the biggest difficulties in tackling large projects in energy efficiency and RES. However, mayors were encouraged to tackle hard projects as possible, leading to energy efficiency. Some projects require Feasibility studies and technical projects, which made it more difficult to address them in the context of the reduced investment budgets. We recommended to put into practice the projects with technical projects already developed, being extremely important in this case the aspects of monitoring of the results.
Also, few planned investments and projects were selected by the Mayors, in early stage of SEAP development, to be included in the CONURBANT Project Work Package 5 activities.

The following actions were selected for implementation:

MUNICIPALITY OF TIMIŞOARA:
1. Rehabilitation of urban public areas from the historic centre of Timişoara;
2. Rehabilitation of public urban infrastructure of Bega Canal banks in Timişoara Municipality;
3. Modernisation of intermodal public transport stations in Timişoara Growth Pole;
4. Short Rotation Coppice Willow (*Salix viminalis*) Plantation on a surface area of 8 hectares in Timişoara;
5. Ecological restoration of the pond in Lămâiței Street from Timişoara;
6. "LIGHT SOLUTION" – Energy Efficiency Solution for the lighting system in "Ion Creangă" Childrens Park in Timişoara;
7. Energy Management System Implementation in municipal buildings of Timişoara;
8. Tree planting - Planting of heat stress resistant trees on public land of Timişoara;
9. The redevelopment of the Hunedoara Place from Timişoara;

BUCOVĂȚ TOWN:
1. Improvement of street ligthing in Bucovăț Town;
2. Acquisition of a new tractor, trailer, shradder and snow plough in Bucovăț Town;
3. Green spaces and parks development;

GHIRODA TOWN:
1. Planning of the Victoria Street from Ghiroda and achievement of footbridges for motorcars and pedestrian access to properties;
2. Rehabilitation of dispensary from Giarmata Vii;
3. Achieving an energy audit of the public lighting system of the Ghiroda Town;
4. Carrying out energy audits for public buildings owned by local authority and their energetic labeling;

5. Rehabilitation and modernization of public lighting based on LED technology;

GIARMATA TOWN:

1. Rehabilitation and upgrading of municipal public bridge on the main road of the Cerneteaz Village;
2. Thermal insulation and energy efficiency in public institutions in the kindergarten from Cerneteaz Village;
3. 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.;*

GIROC TOWN:

1. Development of Solar Plants (PV) with an installated capacity of 4 MW in Giroc Town;
2. Acquisition of 2 environmentally – friendly buses which meet EURO 6 emission standards in Giroc;
3. Asphalting works in the new residential areas in order to decrease the concentration of airborne dust;
4. Development of new sidewalks and bike lanes for a length of about 10 km.;

PECIU NOU TOWN:

1. Modernization of the heating at the Theoretical Lyceum and Rehabilitation of Primary School Peciu Nou;
2. Improvement of street ligthing in Peciu Nou;
3. Execution of construction works related to achievement of investment objective "Extension of Theoretical Lyceum Peciu Nou, Timiş County and rehabilitation of the Primary School in Peciu Nou Town;
4. Purchasing of a car with low fuel consumption;
5. Purchase of high energy efficiency class IT, electronic and electrical equipments and devices;
6. Carrying out energy audits for public buildings owned by local authority and their energetic labeling.

REMETEA MARE TOWN:

1. Extension of water supply network between Remetea Mare and Ianova;
2. Rehabilitation of old communal road DC62 between Remetea Mare – Ianova;
3. Improvement of street lighting system in Remetea Mare;
4. Rehabilitation of the road Remetea Mare – Pişchia (Bencecu de Sus) over a length of 3.2 km;
5. Modernization of the children's playground, in front of the after-hours Kindergarden in Remetea Mare;

SÂNMIHAIU ROMÂN TOWN:

1. Building of the Cultural Centre Sînmihaiu German;
2. Improvement of street lighting system in Sânmihaiu Român;
3. Thermal insulation work of public institutions - schools, kindergartens and health institutions;

ŞAG TOWN:

1. Replacement of lighting units with more efficient ones in terms of consumption and light output at Şag middle school;
2. Tree planting along street alignments and in the communal parks in Şag;
3. Modernization of Communal Park in Şag;

In total, in Municipality of Timişoara and Conurbation towns have been selected 41 actions, in different sectors of the SEAPs: energy efficiency in public buildings, public lighting, cycling infrastructure, modernisation and efficient and modern transport system, energy management, rehabilitation/modernization of public spaces, green spaces and tree planting activities, rehabilitation/modernization of existing infrastucture (roads and streets), developmtns of new infrastructure (water network), new- energy efficient constructions/buildings, ecological agriculture and energetic crops;

2.10. COUNTRY: SPAIN

CONURBATION: PALMA DE MALLORCA CONURBATION

The following actions were selected for implementation:

MUNICIPALITY OF PALMA DE MALLORCA and Conurbation Town SANTA MARIA DEL CAMÍ:

1. Street lighting in Palma;
2. Sustainable Mobility Master Plan;
2.1. Enlargement bicycle lanes;
2.2. Enlargement of the bicycle fleet;
2.3. Development of the Walk to school initiative;
2.4. Acquisition of two electric vehicles for municipal services;
3. Public transportation intermodality in Santa Maria;
4. Door to door waste collection in Santa Maria;

In total, in Municipality of Palma de Mallorca have selected 4 actions, in different sectors of the SEAPs: energy efficiency public lighting, cycling infrastructure and mobility, sustainable mobility planning;

3. CONCLUSION

In all partners Municipalities and Conurbation towns have been selected 236 actions to be implemented within the first year after SEAP finalization. Not all of actions have been estimated in financial terms and neither the estimated results, being in planning and preparation phase. An overall amount of more than 252 million EURO investment is estimated in all Conurbations. Palma de Mallorca Conurbation towns face some difficulties in the selection of the actions due to local financial problems.

All municipalities and conurbation towns with a population of 2,108,422 inhabitants are committed for a clear CO_2 target reduction of at least 130 thousands tonnes. An energy reduction of 260 thousands MWh and RES used of 49 thousands MWh/year are estimated, as following:

Conurbation	Municipality and conurbation towns:	Population	Number of actions proposed	Estimated Energy reduction (MWh)	Estimated CO_2 reduction (tonnes)	Estimated RES used, (MWh/ year)	Estimated Investments to be mobilized (EUR)
Vratsa, Bulgaria	Municipality of Vratsa and 5 Conurbation towns: Krivodol, Kozloduy, Mezdra, Mizia and Oryahovo;	149,532	31	33,000	27,000	29,000	68,600,000
Osijek, Croatia	Municipality of Osijek and 4 Conurbation towns: Beli Manastir, Belišće, Donji Miholjac and Vinkovci.	173,966	19	8,100	2,300	0	5,450,000
Limassol, Cyprus	Municipality of Limassol and 3 Conurbation towns: Kato Polemidia , Mesa Yitonia and Yermasoyia;	159,500	8	350	850	0	627,000
Padova, Italy	Municipality of Padova and 4 Conurbation towns: Rubano, Vigonza, Ponte San Nicolò and Due Carrare;	274,000	12	760	4,450	8,500	23,000,000
Vicenza, Italy	Municipality of Vicenza and 4 Conurbation towns: Monticello, Sovizzo, Arcugnano and Creazzo;	151,481	38	104,000	32,500	4,800	35,500,000
Salaspils, Latvia	Municipality of Salaspils and 4 Conurbation towns: Ikšķile, Lielvārde, Ogre, Ķegums;	87,353	10	3,300	600	0	5,193,300
Alba Iulia,	Municipality of Alba Iulia and 4 Conurbation towns:	77,344	28	10,000	3,000	20	45,000,000

Romania	Berghin, Ciugud, Ighiu and Sîntimbru;						
Arad, Romania	Municipality of Arad and 4 Conurbation towns: Nădlac, Lipova, Pecica and Sântana.	192,401	45	97,000	56,000	200	31,330,000
Timişoara, Romania	Municipality of Timişoara and 8 Conurbation towns: Bucovăț, Giarmata, Ghiroda, Giroc, Peciu Nou, Remetea Mare, Sînmihaiu Român and Şag;	344,235	41	2,500	1,000	7,000	36,500,000
Palma de Mallorca, Spain	Municipality of Palma de Mallorca and 1 Conurbation town: Santa Maria del Camí;	498,610	4	1,450	2,600	0	1,350,000
	TOTAL	**2,108,422**	**236**	**260,460**	**130,300**	**49,520**	**252,550,300**