

IEE PROJECT CONURBANT



REPORT

on

selection and implementation of actions

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1. INTRODUCTION

The Municipalities had to implement at least two actions within the first year after the completion of their SEAPs. After they have selected the actions, the SEAP implementation teams had to secure funding for implementing the selected actions.

This report includes a list and description of the selected actions and it continues to provide information and analysis of the implemented actions in each Municipality. There is also a comparison between selected and implemented actions.

In order to select the 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;

2. SELECTED ACTIONS

3.1 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 Kančov";
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 “Druzhiba”;

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 efficiency 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);

3.2. 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. Modernization 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 fixtures with new energy efficient and ecologically acceptable luminaires;

MUNICIPALITY OF BELI MANASTIR:

Construction of bicycle paths - promotion of EE mobility;

New energy efficient public lighting system - 1,5 km.;

Smart city grid - EE info panels;

MUNICIPALITY OF BELIŠĆE:

Construction of bicycle paths - promotion of EE mobility;

Reconstruction of public lighting system;

Conducting energy audits in public building;

MUNICIPALITY OF DONJI MIHOLJAC

Construction of bicycle paths - promotion of EE mobility;

Conducting energy audits in public buildings;

Reconstruction of public lighting system;

Energy efficient refurbishment of kindergarten;

MUNICIPALITY OF VINKOVCI:

Energy audits of public buildings;

Incentives for EE refurbishment in private households;

Development of study on efficiency of heating systems in the city;

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;

3.3. 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;

3.4. 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 sectors (Residential, Commercial, Agriculture, 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;

3.5 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 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, geothermal energy, waste management, green spaces, transport – sustainable transport for schools, water – water distributors for public spaces, cycle infrastructure development;

3.6. COUNTRY: LATVIA

CONURBATION: SALASPILS CONURBATION

The following actions have been selected for implementation:

MUNICIPALITY OF SALASPILS:

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

IKŠĶĪLE TOWN:

1. Improvement of street lighting;
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 lighting;

2. Increase of EE in public buildings;

ȚEGUMS 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 efficiency in public buildings, public lighting, increase of energy efficiency in the district heating network;

3.7. 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. Rehabilitation 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 of 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 infrastructure (roads), transport;

3.8. COUNTRY: ROMANIA

CONURBATION: ARAD CONURBATION

The following actions 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 Mureş;
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 kindergartens, 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 Mureş;
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,

3.9. COUNTRY: ROMANIA

CONURBATION: TIMIȘOARA CONURBATION

During SEAPs implementation activities in Timișoara Conurbation, a particular importance was given to the selection by Mayors and Project Implementation Units from Town Halls level, actions that will 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 TIMIȘOARA:

- Rehabilitation of urban public areas from the historic centre of Timișoara;
- Rehabilitation of public urban infrastructure of Bega Canal banks in Timișoara Municipality;
- Modernisation of intermodal public transport stations in Timișoara Growth Pole;
- Short Rotation Coppice Willow (*Salix viminalis*) Plantation on a surface area of 8 hectares in Timișoara;
- Ecological restoration of the pond in Lămâiței Street from Timișoara;
- “LIGHT SOLUTION” – Energy Efficiency Solution for the lighting system in “Ion Creangă” Childrens Park in Timișoara;
- Energy Management System Implementation in municipal buildings of Timișoara;
- Tree planting - Planting of heat stress resistant trees on public land of Timișoara;

The redevelopment of the Hunedoara Place from Timișoara;

BUCOVĂȚ TOWN:

Improvement of street lighting in Bucovăț Town;

Acquisition of a new tractor, trailer, shredder and snow plough in Bucovăț Town;

Green spaces and parks development;

GHIRODA TOWN:

Planning of the Victoria Street from Ghiroda and achievement of footbridges for motorcars and pedestrian access to properties;

Rehabilitation of dispensary from Giarmata Vii;

Achieving an energy audit of the public lighting system of the Ghiroda Town;

Carrying out energy audits for public buildings owned by local authority and their energetic labeling;

Rehabilitation and modernization of public lighting based on LED technology;

GIARMATA TOWN:

Rehabilitation and upgrading of municipal public bridge on the main road of the Cernetez Village;

Thermal insulation and energy efficiency in public institutions in the kindergarten from Cernetez Village;

Planting on the public domain a number of at least 50 trees per year, out of the species resilient to drought and heat stress – *Robinia sp.*;

GIROC TOWN:

Development of Solar Plants (PV) with an installed capacity of 4 MW in Giroc Town;

Acquisition of 2 environmentally – friendly buses which meet EURO 6 emission standards in Giroc;

Asphalting works in the new residential areas in order to decrease the concentration of airborne dust;

Development of new sidewalks and bike lanes for a length of about 10 km.;

PECIU NOU TOWN:

Modernization of the heating at the Theoretical Lyceum and Rehabilitation of Primary School Peciu Nou;

Improvement of street lighting in Peciu Nou;

Execution of construction works related to achievement of investment objective “Extension of Theoretical Lyceum Peciu Nou, Timiș County and rehabilitation of the Primary School in Peciu Nou Town;

Purchasing of a car with low fuel consumption;

Purchase of high energy efficiency class IT, electronic and electrical equipments and devices;

Carrying out energy audits for public buildings owned by local authority and their energetic labeling.

REMETEA MARE TOWN:

Extension of water supply network between Remetea Mare and Ianova;

Rehabilitation of old communal road DC62 between Remetea Mare – Ianova;

Improvement of street lighting system in Remetea Mare;

Rehabilitation of the road Remetea Mare – Pișchia (Bencecu de Sus) over a length of 3.2 km;

Modernization of the children’s playground, in front of the after-hours Kindergarten in Remetea Mare;

SÂNMIIHAIU ROMÂN TOWN:

Building of the Cultural Centre Sînmihaiu German;

Improvement of street lighting system in Sînmihaiu Român;

Thermal insulation work of public institutions - schools, kindergartens and health institutions;

ȘAG TOWN:

Replacement of lighting units with more efficient ones in terms of consumption and light output at Șag middle school;

Tree planting along street alignments and in the communal parks in Șag;

Modernization of Communal Park in Șag;

In total, in Municipality of Timișoara 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 infrastructure (roads and streets), developmnts of new

infrastructure (water network), new- energy efficient constructions/buildings, ecological agriculture and energetic crops;

3. IMPLEMENTED ACTIONS

This chapter tries to analyse the implemented actions per sector. The analysis intends to distinguish the field of interest of the Municipalities and conurbation towns and the financial resources mobilized for the implemented measures.

The requirement of CONURBANT Project is to implement at least 96 actions.

The implemented projects were different - small, medium and large-scale investment projects, important both in terms of funding and in terms of reducing CO₂ emissions.

During the implementation process, the project technical partners have played an important role.

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

- Municipal buildings sector;
- Public buildings sector;
- Residential buildings sector;
- Public lighting sector;
- Public transport and urban mobility sectors;
- Green spaces sector;
- The sector of energy production from renewable sources.
- Infrastructure development;
- Waste management;

Below are the tables that describe the actions per sector. Three new indicators have been added to describe the specific costs (Euro/tCO₂), the investment efficiency of energy savings (Euro/MWh) and the investment efficiency of RES production (Euro/MWh).

MUNICIPAL BUILDINGS

Country	Measure/activity Status of implementation	Total investments, EUR	Energy savings, MWh/year	CO ₂ emissions reduced, tCO ₂ /year	RES used, MWh/year	Specific Costs EUR/tCO ₂	Investment Efficiency of Energy Savings EUR/MWh	Investment Efficiency of RES Production EUR/MWh
Bulgaria	1 Energy audits of buildings, municipal ownership - 17 energy audits in Vratsa; - Implemented;	32,212.00	0.00	0.00	0.0	-	-	-
Italy	2 Renewable electricity purchase for the consumption of energy in public administration (electricity consumption in public buildings and public lighting) in Ponte San Nicolò; - Implemented;	49,435.0	178.4	39.5	0.0	1,251.52	277.10	-
Italy	3 PV plant on Municipality Building in Sovizzo; - Implemented;	6,000.0	0.0	1.0	3.0	6,000.00	-	2,000.00
Romania	4 Thermal rehabilitation of Ciugud public administration building; - Implemented;	396,742.0	8.07	1.9	0.0	208,811.60	49162.58	-
Romania	5 Thermal rehabilitation of Hăpria Cultural Center building in Ciugud; - Implemented;;	174,672.0	4.3	1.01	0.0	172,942.60	40621.40	-
Romania	6 Thermal rehabilitation of Limba Cultural Center building in Ciugud; - Implemented;	187,124.0	5.98	1.41	0.0	132,712.10	31291.64	-

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Romania	7	Thermal rehabilitation of Berghin Cultural Center building; - Implemented;	75,387.0	6.82	2.71	0.0	27,818.08	11,053.81	-
Romania	8	Thermal rehabilitation of Ighiu Cultural Center building; -Implemented;	84,371.0	12.53	3.09	0.0	27,304.53	6,733.52	-
Romania	9	Thermal rehabilitation of Sîntimbru public administration building; -Implemented;	47,364.0	12.67	2.95	0.0	16,055.59	3,738.28	-
Romania	10	Thermal rehabilitation of Sîntimbru Fabrica Cultural Center building; -Implemented;	92,864.0	8.86	2.06	0.0	45,079.61	10,481.26	-
Romania	11	Thermal rehabilitation of Totoi Cultural Center building in Sîntimbru; -Implemented;	52,495.0	7.39	1.72	0.0	30,520.35	7,103.52	-
Romania	12	Installation of photovoltaic pannels on administrative buildings – Lipova conurbation town; - Ongoing	15,000	0.0	7.98	15.0	1,879.70	-	1,000.00
Romania	13	Energy Management System Implementation in municipal buildings of Timișoara; - Implemented;	7,250	0.00	0.0	0.0	-	-	-
TOTAL			1,220,916.00	245.02	65.33	18.00	18,688.44	4,982.92	67,828.67

PUBLIC BUILDINGS

Country	Measure/activity Status of implementation	Total investments, EUR	Energy savings, MWh/year	CO ₂ emissions reduced, tCO ₂ /year	RES used, MWh/year	Specific Costs EUR/tCO ₂	Investment Efficiency of Energy Savings EUR/MWh	Investment Efficiency of RES Production EUR/MWh
Bulgaria	1 Reconstruction, maintenance and implementation of energy efficiency measures in educational institutions - kindergartens, primary and secondary schools - Energy efficiency in Kindergarten № 1 "Brezichka"; - Implemented;	105,006.08	325.98	88.50	0.0	1,186.51	322.12	-
Bulgaria	2 Energy efficiency improvements in public buildings: Administrative building "Mayoralty" - the village Kriva bara; - Implemented;	69,000.0	6.41	50.84	0.0	1,357.20	10,764.43	-
Bulgaria	3 Energy efficiency improvements in public buildings: Administrative building "Mayoralty" - the village Butan; - Implemented;	69,000.0	4.40	34.86	0.0	1,979.35	15,681.82	-
Bulgaria	4 EE improvements in public buildings: Kindergarten „Parvi Juni”–village Butan; - Implemented;	71,000.0	6.01	47.67	0.0	1,489.41	11,813.64	-

Bulgaria	5	Energy efficiency improvements in public buildings: Sport Hall „Hristo Botev”; - Implemented;	115,000.0	21.57	88.58	0.0	1,298.26	5,331.48	-
Bulgaria	6	Energy efficiency improvements in public buildings: Kindergarten „Zvanche”; - Implemented;	109,000.0	19.30	94.04	0.0	1,159.08	5,647.67	-
Bulgaria	7	Energy efficiency improvements in public buildings: Primary School "Vasil Aprilov" (new part of the school)– village Harlets; - Implemented;	109,000.0	20.61	74.36	0.0	1,465.84	5,288.70	-
Bulgaria	8	Energy efficiency improvements in public buildings: Kindergarten „Slanchitse”; - Implemented;	97,000.0	17.89	83.32	0.0	1,164.19	5,422.02	-
Bulgaria	9	Energy efficiency improvements in public buildings: Secondary school „Hristo Botev” (basic building) – Kozloduy; - Implemented;	212,000.0	13.14	53.33	0.0	3,975.25	16,133.94	-
Bulgaria	10	Energy efficiency improvements in public buildings: Secondary school „Kiril i Metodii”; - Implemented;	189,000.0	46.55	188.92	0.0	1,000.42	4,060.15	-
Bulgaria	11	Energy efficiency improvements in public buildings: Community center “Hram-pametnik Hristo Botev 1879” – Kozloduy; - Implemented;	51,000.0	13.78	55.75	0.0	914.80	3,701.02	-

Bulgaria	12	Energy efficiency improvements in public buildings: Community center „Iakim Despotov” – village Glojene – Kozloduy; - Implemented;	114,000.0	27.78	68.21	0.0	1,671.31	4,103.67	-
Bulgaria	13	EE improvements in public buildings: Kindergarten "Radost"- Kozloduy; - Implemented;	90,000.0	33.39	139.23	0.0	646.41	2,695.42	-
Bulgaria	14	EE improvements in public buildings: Primary school "Vasil Aprilov"-the old building – village Harlets –Kozloduy; - Implemented;	96,000.0	8.82	69.94	0.0	1,372.61	10,884.35	-
Bulgaria	15	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; - Implemented;	418,588.0,0	405.09	276.68	0.0	1,512.9	1,033.32	-
Bulgaria	16	Thermal insulation, replacement of joinery and installation of solar systems in Kindergarten “Druzha” in Oryahovo; - Implemented;	42,311.29	10.16	90.00	0.0	470.13	4,164.50	-
Bulgaria	17	Thermal insulation, replacement of joinery and installation of solar systems in Kindergarten “Prolet” in Oryahovo; - Implemented;	119,726.50	42.25	315.0	0.0	380.09	2,833.76	-

Bulgaria	18	Insulation, window replacement and installation of solar systems in Kindergarten "Mir" village Selanovtsi in Oryahovo; - Implemented;	186,435.5	27.01	184.40	0.0	1,011.04	6,902.46	-
Bulgaria	19	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; - Implemented;	254,578.65	158.74	38.74	0.0	6,571.47	1,603.75	-
Croatia	20	Thermal insulation of roofs and shelling of 15 public buildings; - Implemented;	315,789	800	186.06	0.0	1,697.24	394.74	-
Croatia	21	Energy audits and energy certification of schools, kindergartens and other public buildings; - Implemented;	79,000	696	172.02	0.0	459.25	113.51	-
Croatia	22	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; - Implemented;	329,000	4,381	1,393.79	0.0	236.05	75.1	-
Italy	23	PV plants installed by Public Administration on Public Buildings in Rubano; - Implemented;	931,675.0	0.0	67	173.4	13,905.6	-	5,372.98

Italy	24	Energy efficiency measures on the School "Pascoli" (insulation and windows replacement) in Rubano; - Implemented;	1,600,000.0	45	9	0.0	177,777.80	35,555.56	-
Italy	25	Energy efficiency measures in public buildings (insulation, windows replacement, heating plant replacement) in Ponte San Nicolò; - Implemented;	337,136.0	373	80	0.0	4,214.20	903.85	-
Italy	26	Energy Efficiency of heating plant in public buildings in Vicenza; - Implemented	1,500,000.0	110.0	30	0.0	50,000.00	13,636.36	-
Italy	27	PV plant on Ugo Foscolo Primary School in Argugnano; - Implemented;	45,000.0	0.0	9.0	22.0	5,000.00	-	2,045.46
Italy	28	Energy Efficiency on Public Buildings: heating plants substitution in Argugnano; - Implemented;	46,000.0	27.0	5.5	0.0	8,363.64	1,703.70	-
Italy	29	Energy efficiency on public buildings, heating plants, insulation and windows substitution in Creazzo; - Implemented;	98,823.0	204.0	42.0	0.0	2,352.93	484.43	-
Latvia	30	Increase of EE in public buildings in Salaspils; - Implemented;	652,846	770	156	0.0	4,184.91	847.85	-
Latvia	31	Increase of EE in public buildings in Ikšķile; - Implemented;	539,518	440	88	0.0	6,130.89	1,226.18	-

Latvia	32	Increase of EE in public buildings in Lielvārde; - Implemented;	697,115	651	155	0.0	4,497.52	1,070.84	-
Latvia	33	Increase of EE in public buildings in Ogre; - Implemented;	783,099	440	88	0.0	8,898.85	1,779.77	-
Latvia	34	Energy efficiency in public buildings in Kegums; - Implemented;	913,944	400	N/A	0.0	-	2,284.86	-
Romania	35	Thermal and lighting system rehabilitation of Berghin school building; -Implemented;	93,834	8.52	3.62	0.0	25,920.99	11,013.38	-
Romania	36	Thermal and lighting system rehabilitation of Ghirbom school building; -Implemented;	115,044.0	7.57	3.22	0.0	35,727.95	15,197.36	-
Romania	37	Arad; Energy efficiency in public buildings (school and boarding facilities) – ESCO Pilot-project; - Ongoing (under evaluation)	under evaluation	under evaluation	under evaluation	under evaluation	-	-	-
Romania	38	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 conurbation town - Implemented	1,018,000	0.0	0.0	0.0	-	-	-
Romania	39	Feasibility Study for Improvement of heating system for Kindergarten no. 1 -Nădlac	4,800	0.0	0.0	0.0	-	-	-

		conurbation town - Implemented								
Romania	40	Improvement of heating system in Kindergarten no. 1 – Nădlac conurbation town - Implemented	130,000	1.5	0.8	0.0	162,500.00	86,666.67	-	
Romania	41	Installation of solar pannels on public buildings – Lipova conurbation town; - Ongoing	50,000	0.0	15.0	7.98	3,333.33	-	6,265.66	
Romania	42	Modern lighting system in 11 schools – Pecica conurbation town - Ongoing	N/A	55.8	31.28	0.0	-	-	-	
Romania	43	Mounting photovoltaic panels on town market building – Sântana conurbation town; - Ongoing	15,000	0.0	3.99	7.5	3,759.40	-	2,000.00	
Romania	44	Thermal insulation and energy efficiency in public institutions in the kindergarten from Cernetez; - Implemented;	13 806	N/A	N/A	0,0	-	-	-	
Romania	45	Modernization of the heating at the Theoretical Lyceum and Rehabilitation of Primary School in Peciu Nou; - Implemented;	130,000	30.00	6.0	0.0	21,666.67	4,333.33	-	
Romania	46	Replacement of lighting units with more efficient ones in terms of consumption and light output at Șag middle school;	1,932	0.0	0.0	0.0	-	-	-	

	- Implemented;							
TOTAL		12,526,613.02	10,649.27	4,587.65	210.88	2,730.51	1,176.29	59,401.62

RESIDENTIAL BUILDINGS

Country	Measure/activity Status of implementation	Total investments, EUR	Energy savings, MWh/year	CO ₂ emissions reduced, tCO ₂ /year	RES used, MWh/year	Specific Costs EUR/tCO ₂	Investment Efficiency of Energy Savings EUR/MWh	Investment Efficiency of RES Production EUR/MWh
Bulgaria	1 Development of mechanisms for public-private partnership for construction of RES installations on the territory of the municipality of Mezdra; - Implemented;	766,091.76	2,550.0	1,390.50	0.0	550.95	300.43	-
Italy	2 Energy efficiency on private buildings sector in Argugnano; - Implemented;	N/A	0.0	230.0	0.0	-	-	-
Italy	3 Energy efficiency on private buildings in 2012 in Creazzo; - Implemented;	786,556.0	326.0	65.9	0.0	11,935.60	2,412.75	-
Romania	4 Thermal rehabilitation of three blocks of flats from the downtown area in Alba Iulia;	644,802.0	1,280.79	343.65	0.0	1,876.33	503.44	-

		- Implemented;							
Romania	5	Solar panels used as an experiment by 10 houses for a period of 2 years– Sântana conurbation town; - Ongoing	37,200	0.0	10.62	20.0	3,502.82	-	1,860.00
Romania	6	Rehabilitation of apartment buildings in Arad; - Ongoing	6,000,000	13,403.0	5,910.0	0.0	1,015.23	447.66	-
TOTAL			8,234,649.76	17,559.79	7,950.67	20.00	1,035.72	468.95	411,732.49

PUBLIC LIGHTING

Country	Measure/activity Status of implementation	Total investments, EUR	Energy savings, MWh/year	CO ₂ emissions reduced, tCO ₂ /year	RES used, MWh/year	Specific Costs EUR/tCO ₂	Investment Efficiency of Energy Savings EUR/MWh	Investment Efficiency of RES Production EUR/MWh
Croatia	1 Replacement of outdated lighting fixtures with new energy efficient and ecologically acceptable luminaires; - Implemented;	1,239,000	2,253	582.05	0.0	2,128.68	549.93	-
Cyprus	2 Street Lighting Replacement of Lamps in Limassol; - Ongoing;	75,000	219	191	0.0	392.67	342.47	-

Cyprus	3	Street Lighting Replacement of Lamps in Kato Polemidia; - Ongoing;	6,600	19	17	0.0	388.24	347.37	-
Cyprus	4	Street Lighting Replacement of Lamps in Mesa Yitonia; - Ongoing;	26,000	75	66	0.0	393.94	346.67	-
Cyprus	5	Street Lighting Replacement of Lamps in Yermasoyia; - Ongoing;	15,000	49	38	0.0	394.74	306.12	-
Italy	6	Energy efficiency measures on public lighting system in Vigonza; - Implemented;	0.0	41	16	0.0	0.00	0.00	-
Italy	7	Energy efficiency in public lighting (LED technology system installation) in Due Carrare; - Implemented;	200,000.0	123.2	51	0.0	3,921.57	1,623.38	-
Italy	8	Energy efficiency on public lighting in Monticello; - Implemented;	387,000.0	17.4	0.0	0.0	-	22,241.38	-
Italy	9	Energy efficiency on public lighting in Sovizzo; - Implemented;	60,000.0	9.0	3.9	0.0	15,384.62	6,666.67	-
Italy	10	Energy Efficiency on public lighting in Creazzo; - Implemented;	40,000.0	151.3	0.0	0.0	-	264.38	-
Latvia	11	Improvement of street lighting in Salaspils; - Implemented;	143,065	142.3	57	0.0	2,509.91	1,005.38	-
Latvia	12	Improvement of street lighting in Ikšķile; - Implemented;	56,223	30.4	12	0.0	4,685.25	1,849.44	-

Latvia	13	Improvement of street lighting in Ogre; - Implemented;	165,750	55	22	0.0	7,534.09	3,013.64	-
Romania	14	Concession of public lighting service for a period of 10 years in Alba Iulia; - Implemented;	3,000,000.0	520.0	365.0	0.0	8,219.18	5,769.23	-
Romania	15	Rehabilitation of public lighting Fortress and Central Area in Alba Iulia; - Implemented;	230,000.0	43.0	30.14	0.0	7,631.06	5,348.84	-
Romania	16	Rehabilitation the zonal public lighting system - smart lighting (900 lighting fixtures of 5,000) in Alba Iulia; - Implemented;	450,000.0	120.0	84.0	0.0	5,357.14	3,750.00	-
Romania	17	Seusa Public lighting rehabilitation, powered by wind farm combined with PV; - Implemented;	300,000.0	20.0	14.02	20.0	21,398.00	15,000.00	15,000.00
Romania	18	Public lighting rehabilitation in Berghin; - Implemented;	12,472.0	33.21	23.28	0.0	535.74	375.55	-
Romania	19	Public lighting rehabilitation in Ighiu; -Implemented;	98,923.0	96.50	67.64	0.0	1,462.49	1,025.11	-
Romania	20	Expansion of public lighting network in the municipality of Arad and implementation of photovoltaic panels for partial supply; - Ongoing	2,743,000	330.0	230.0	0.0	-	-	-

Romania	21	Street lighting modernisation in residential area ANL – Lipova conurbation town ; - Implemented	14,300	0.0	0.0	0.0	11,926.09	8,312.12	-
Romania	22	Efficient use of public lighting – Sântana conurbation town; - Ongoing	0.00	6.0	3.60	0.0	0.00	0.00	-
Romania	23	“LIGHT SOLUTION” – Energy Efficiency Solution for the lighting system in “Ion Creangă” Childrens Park in Timișoara; - Implemented;	18,450	3.00	1.5	0.0	12,300.00	6,150.00	-
Romania	24	Improvement of street lighting in Bucovăț; -Ongoing;	55,500	16.00	8.6	0.0	6,453.49	3,468.75	-
Romania	25	Improvement of street lighting in Peciu Nou; - Ongoing;	26,000	17.00	9.0	0.0	2,888.89	1,529.41	-
Spain	26	Street lighting in Palma; - Implemented;	1,000,000	739	871	0.0	1,148.11	1,353.18	-
TOTAL			10,362,283.00	5,128.31	2,763.73	20.00	3,749.38	2,020.60	518,114.15

PUBLIC TRANSPORT AND URBAN MOBILITY

Country	Measure/activity Status of implementation	Total investments, EUR	Energy savings, MWh/year	CO ₂ emissions reduced, tCO ₂ /year	RES used, MWh/year	Specific Costs EUR/tCO ₂	Investment Efficiency of Energy Savings EUR/MWh	Investment Efficiency of RES Production EUR/MWh
Bulgaria	1 Feasibility study for integrated urban transport in Vratsa; - Implemented;	18,713.57	0.00	0.00	0.0	-	-	-
Italy	2 Cycling Plan 2012 in Municipality of Padova; - Implemented;	1,580,000.0	0.0	944	0.0	1,673.73	-	-
Italy	3 House-schools bus service in Sovizzo; - Implemented;	17,000.0	0.0	1.4	0.0	12,142.86	-	-
Italy	4 Cycle paths in Sovizzo; - Implemented;	280,000.0	N/A	N/A	0.0	-	-	-
Italy	5 New cycle paths in Sovizzo; - Implemented;	150,000.0	0.0	0.0	0.0	-	-	-
Italy	6 Cycle Paths in Creazzo; - Implemented;	1,047,174.0	N/A	0.0	0.0	-	-	-
Italy	7 From house to schools "pedibus service" in Creazzo; - Implemented;	0.0	0.0	85.0	0.0	0.00	-	-

Romania	8	Joining to AIDA - Intercommunity Development Association for Public Transport. (three years contribution 2013-2015). - Implemented;	10,500,000.0	700.0	187.0	0.0	56,149.73	15,000.00	-
Romania	9	Joining to AIDA - Intercommunity Development Association for Public Transport; - Implemented;	40,000.0	350.0	91.0	0.0	439.56	114.29	-
Romania	10	Joining to AIDA - Intercommunity Development Association for Public Transport. -Implemented;	30,000.0	400.0	100.0	0.0	300.00	75.00	-
Romania	11	Joining to AIDA - Intercommunity Development Association for Public Transport; -Implemented;	60,000.0	120.0	40.0	0.0	1,500.00	500.00	-
Romania	12	Arad Urban Transport Project - Purchase of 6 new energy efficient trams, modernisation of tram depot, implementation of e-ticketing system and outsourcing of regional bus services; - Ongoing	9,300,000	3,351.0	8,482.0	0.0	1,096.44	2,775.29	-
Romania	13	Bicycle lanes along the river Mureş (12.5 km); - Ongoing	1,250,000	4,189.0	1,060.0	0.0	-	-	-
Romania	14	Bicycle routes in the city of Arad (122.5 km); - Ongoing	4,700,000	419.0	106.0	0.0	1,179.25	298.40	-

Romania	15	Efficient use of cars by local administration and public institutions, stimulating bicycle use – Nădlac conurbation town; - Implemented	0.0	0.9	0.073	0.0	-	-	-
Romania	16	Development of 12.5 km new bicycle lanes – Pecica conurbation town; - Implemented	455,000	0.0	0.0	0.0	44,339.62	11,217.18	-
Romania	17	Buying 10 bicycles to be used by public sector employees – Pecica conurbation town; - Implemented	1,500	24.0	6.0	0.0	0.00	0.00	-
Romania	18	Modernization of intermodal public transport stations in Timișoara Growth Pole; - Ongoing;	1,664,272	37.00	107.0	0.0	15,553.94	44,980.32	-
Romania	19	Acquisition of 2 environmentally friendly buses which meet EURO 6 Emission Standards in Giroc; - Ongoing;	350,000	7.50	2.0	0.0	175,000.00	46,666.67	-
Spain	20	Sustainable Mobility Master Plan, 4 project portfolio as follows:	351,350	352	1,292.66	0.0	271.80	998.15	-
Spain	21	Enlargement bicycle lanes;	110,000	324.5	1,245	0.0	88.35	338.98	-
Spain	22	Enlargement of the bicycle fleet;	90,750	10.52	40	0.0	2,268.75	8,626.43	-

Spain	23	Development of the Walk to school initiative;	106,600	16.07	4.21	0.0	25,320.67	6,633.48	-
Spain	24	Acquisition of two electric vehicles for municipal services;	44,000	0.921	3.45	0.0	12,753.62	47,774.16	-
Spain	25	Public transportation intermodality in Santa Maria - Implemented;	400	5.92	22.73	0.0	17.60	67.57	-
TOTAL			32,146,759.57	10,308.33	13,819.52	0.00	2,326.18	3,118.52	-

GREEN SPACES

Country	Measure/activity Status of implementation	Total investments, EUR	Energy savings, MWh/year	CO ₂ emissions reduced, tCO ₂ /year	RES used, MWh/year	Specific Costs EUR/tCO ₂	Investment Efficiency of Energy Savings EUR/MWh	Investment Efficiency of RES Production EUR/MWh
Bulgaria	1 Construction of public green area in housing estate "Dabnika" in Vratsa; - Implemented;	1,567,541.88	0.00	N/A	0.0	-	-	-
Bulgaria	2 Rehabilitation and renovation of public park "Hijata" in Vratsa; - Implemented;	614,866.55	0.00	N/A	0.0	-	-	-
Bulgaria	3 Construction of park zone in the region of Medkovsko dere from the Boulevard "Vtori Yuni" to "Vasil Kančov" in Vratsa;	179,849.68	0.00	N/A	0.0	-	-	-

		- Implemented;							
Cyprus	4	Tree planting in Limassol; - Implemented;	500,000	0.0	255	0.0	1,960.78	-	-
Cyprus	5	Tree planting in Kato Polemidia; - Implemented;	2,000	0.0	100	0.0	20.00	-	-
Cyprus	6	Tree planting in Mesa Yitonia; - Implemented;	1,000	0.0	100	0.0	10.00	-	-
Cyprus	7	Tree planting in Yermasoyia; - Implemented;	2,000	0.0	100	0.0	20.00	-	-
Italy	8	Planting of 2,600 trees in 2012 in Vicenza; - Implemented;	260,000.0	0.0	7,954.0	0.0	32.69	-	-
Italy	9	Tree planting in Monticello; - Implemented;	8,500.0	0.0	21.0	0.0	404.76	-	-
Italy	10	Tree planting in Sovizzo; - Implemented;	1,500.0	0.0	26.0	0.0	57.69	-	-
Italy	11	Tree planting in Argugnano; - Implemented;	2,000.0	0.0	9.0	0.0	222.22	-	-
Italy	12	Tree planting in Creazzo; - Implemented;	400.0	0.0	85.0	0.0	4.71	-	-
Romania	13	Feasibility Study and technical design for reforestation in the area of Nădlac conurbation town; - Ongoing	7,900	0.0	24.67	0.0	320.23	-	-

Romania	14	Rehabilitation of parks and trees planting– Lipova conurbation town; - Ongoing	140,000	0.0	21.15	0.0	6,619.39	-	-
Romania	15	Short Rotation Coppice Willow (<i>Salix viminalis</i>) Plantation on a surface area of 8 hectares in Timișoara; - Implemented;	12,000	1,348.00	532.0	1,348.0	22.56	8.90	8.90
Romania	16	Ecological restoration of the pond in Lămâiței Street from Timișoara; - Ongoing;	645,000	0.00	0.0	0.0	-	-	-
Romania	17	Tree Planting - Planting of heat stress resistant trees on public land of Timișoara; - Implemented;	650,000	0.0	188.0	0.0	3,457.45	-	-
Romania	18	Tree planting along street alignments and in the communal parks in Șag; - Implemented;	24,666	0.0	0.0	0.0	-	-	-
TOTAL			4,619,224.11	1,348.00	9,415.82	1,348.00	490.58	3426.72	3426.72

ENERGY PRODUCTION FROM RES

Country	Measure/activity Status of implementation	Total investments, EUR	Energy savings, MWh/year	CO ₂ emissions reduced, tCO ₂ /year	RES used, MWh/year	Specific Costs EUR/tCO ₂	Investment Efficiency of Energy Savings EUR/MWh	Investment Efficiency of RES Production EUR/MWh
Bulgaria	1 Construction of stationary photovoltaic power plant in the town of Vratsa area Kolomanovo with power of 15 MW; - Implemented;	37,191,430.0	17,549.00	14,372.63	17,549.0	2,587.66	2,119.29	2,119.29
Bulgaria	2 Construction of stationary photovoltaic power plant in the town of Vratsa area Kolomanovo with power of 10 MW; - Implemented;	24,722,880.0	11,695.00	9,578.21	11,695.0	2,581.16	2,113.97	2,113.97
Italy	3 PV plants installation in private sectors in Rubano; - Implemented;	3,502,700.0	0.0	536.25	1,375.0	6,531.84	-	2,547.42
Italy	4 Solar thermal plants installation in private sectors (residential sector) in Vigonza; - Implemented;	184,150	0.0	248.8	1,232.0	740.15	-	149.47

Italy	5	PV plants in private sectors in Ponte San Nicolò; - Implemented;	9,307,150	0.0	1,317.0	3,315.0	7,066.93	-	2,807.59
Italy	6	PV plants installation in private sectors (Residential, Commercial, Agriculture, Industrial in Due Carrare; - Implemented;	5,400,600.0	0.0	993	2,574.0	5,438.67	-	2,098.14
Italy	7	Vicenza Action E - PV plants in Private Sectors 2012-2014; - Implemented;	11,000,000.0	0.0	1,526.0	2,834.4	7,208.39	-	3,880.89
Italy	8	Green energy procurement for the Public Administration electricity consumption in Monticello; - Implemented;	170,000.0	1,020.0	488.4	0.0	348.08	166.67	-
Italy	9	PV plants in private sectors 2012-2013 in Sovizzo; - Implemented;	1,258,131	0.0	257.4	660.0	4,887.84	-	1,906.26
Italy	10	PV plants in private sectors 2012-2013 in Argagnano; - Implemented;	628,192.0	0.0	128.3	329.1	4,896.27	-	1,908.82
Italy	11	Green energy procurement for the Public Administration electricity consumption in Creazzo; - Implemented;	270,024.0	1,302.0	640.6	0.0	421.52	207.39	-
Italy	12	PV plants in private sectors 2012-2013 in Creazzo; - Implemented;	701,513.0	0.0	134.1	343.8	5,231.27	-	2,040.47

Italy	13	Solar Thermal energy production in private sectors in Creazzo; - Implemented;	73,660.0	0.0	127.2	630.0	579.09	-	116.92
Romania	14	Solar pannels for private homes – Green House programme – Nădlac conurbation town; - Implemented	37,500	0.0	6.54	12.3	5,733.94	-	3,048.78
Romania	15	Development of Solar Plants (PV) with an installed capacity of 4 MW in Giroc; - Started;	5,000,000	0.0	0.0	5,785.0	-	-	864.30
TOTAL			99,447,930.00	31,566.00	30,354.43	48,334.60	3,276.22	3,150.48	2,057.49

INFRASTRUCTURE DEVELOPMENT

Country	Measure/activity Status of implementation	Total investments, EUR	Energy savings, MWh/year	CO ₂ emissions reduced, tCO ₂ /year	RES used, MWh/year	Specific Costs EUR/tCO ₂	Investment Efficiency of Energy Savings EUR/MWh	Investment Efficiency of RES Production EUR/MWh
	1 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	55,220.37	0.00	0.00	0.0	-	-	-

Bulgaria		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); - Implemented;							
Bulgaria	2	Development of mechanisms for public-private partnership for construction of RES installations on the territory of the municipality of Mezdra; - Implemented;	766,091.76	2,550.0	1,390.50	0.0	550.95	300.43	-
Bulgaria	3	Creation of energy informational base for installed renewable energy capacity in the territory of the municipality of Mezdra: - Implemented;	3,575.09	0.0	0.0	0.0	-	-	-
Bulgaria	4	Spatial planning, procurement and interaction with civil society in Mizia; - Implemented;	32,130.0	0.0	0.0	0.0	-	-	-

Bulgaria	5	Rehabilitation and reconstruction of the road network in the Municipality Krivodol - Georgi Dimitrov street, Osvobozhdenie street, Dimitar Blagoev street. - Implemented;	934,378.51	N/A	N/A	0.0	-	-	-
Italy	6	Drinking water distributor for citizens in Monticello; - Implemented;	0.0	0.0	19.0	0.0	0.00	-	-
Italy	7	Drinking Water Distributor for citizens in Sovizzo; - Implemented;	0.0	0.0	22.0	0.0	0.00	-	-
Italy	8	Quality Management System UNI ISO 9001 in Sovizzo; - Implemented;	9,000.0	0.0	0.3	0.0	30,000.00	-	-
Italy	9	Drinking Water Distributor for citizens in Creazzo; - Implemented;	0.0	0.0	44.0	0.0	0.00	-	-
Latvia	10	Improvement of DH network in Lielvārde; - Implemented;	1,151,500	230	46	0.0	25,032.61	5,006.52	-
Romania	11	Rehabilitation of Tolstoi district: streets = 840 m, walkways and bicycle lanes = 1,657.5 m,, platform + parking places = 11,370 sqm. In Alba Iulia; - Implemented;	834,566.0	303.42	80.27	0.0	10,396.99	2,750.53	-
Romania	12	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 –	4,084,061.0	1,638.33	423.48	0.0	9,644.05	2,492.82	-

		3,410 sqm., public lighting 5,580 m.; - Implemented;								
Romania	13	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.; - Implemented;	3,327,579.0	1,310.66	338.78	0.0	9,822.24	2,538.86	-	
Romania	14	Rehabilitaton of historical center, Vauban fortification - access roads, public lighting and urban furniture; - Implemented;	9,251,111.0	3,309.79	870.18	0.0	10,631.26	2,795.07	-	
Romania	15	Upgrading and rehabilitation of sewerage system in Alba Iulia in length of 37,135 m, 10 pumping stations and 2,175 m. connections; - Implemented;	10,407,477.0	125.0	87.0	0.0	119,626.17	83,259.82	-	
Romania	16	Construction of new building for Elderly Daycare Center in Ighiu; -Implemented;	105,000.0	22.33	5.52	0.0	19,021.74	4,702.19	-	
Romania	17	Modernization of 9.85 km (35%) transport infrastructure in Ighiu, Bucerdea Vinoasa, Sard villages; -Implemented;	1,371,557.0	32.00	8.25	0.0	166,249.33	42,861.16	-	
Romania	18	Construction of new building for Elderly Daycare Center in Sîntimbru; -Implemented;	108,282.0	9.85	2.11	0.0	51,318.48	10,993.10	-	

Romania	19	Rehabilitation of the transport and distribution network of thermal energy (district heating) in Arad and conversion of thermal substation in Aradul Nou District; - Ongoing	7,242,325	19,500.0	7.029.0	0.0	1,030.35	371.40	-
Romania	20	Opportunity study for the use of geothermal energy for hot water and heating in private buildings– Pecica conurbation town; - Implemented	25,000	0.0	0.0	0.0	-	-	-
Romania	21	Rehabilitation of urban public areas from the historic centre of Timișoara; - Ongoing;	14,575,150	900.00	233.0	0.0	62,554.29	16,194.61	-
Romania	22	Rehabilitation of public urban infrastructure of Bega Canal banks in Timișoara; - Ongoing;	10,934,975	43.00	33.5	0.0	326,417.16	254,301.74	-
Romania	23	Modernization of intermodal public transport stations in Timișoara Growth Pole; - Ongoing;	1,664,272	37.00	107.0	0.0	15,553.94	44,,980.32	-
Romania	24	The Redevelopment of the Hunedoara Place from Timișoara; - Implemented;	105,000	0.0	0.0	0.0	-	-	-
Romania	25	Acquisition of a new tractor, trailer, shredder and snow plough in Bucovăț; - Implemented;	35,000	1.0	0.2	0.0	175,000.00	35,000.00	-

Romania	26	Planning of the Victoria Street from Ghiroda and achievement of footbridges for motorcars and pedestrian access to properties - Ongoing;	858,715	N/A	N/A	0.0	-	-	-
Romania	27	Rehabilitation of dispensary from Giarmata Vii; - Implemented;	10,114	N/A	N/A	0.0	-	-	-
Romania	28	Rehabilitation and upgrading of municipal public bridge on the main road of the Cernetez; - Implemented;	108,029	N/A	N/A	0.0	-	-	-
Romania	29	Execution of construction works related to achievement of investment objective "Extension of Theoretical Lyceum Peciu Nou, Timiș County and rehabilitation of the Primary School in Peciu Nou; - Implemented;	1,093,996	0.0	0.0	0.0	-	-	-
Romania	30	Extension of water supply network between Remetea Mare and Ianova; - Implemented;	124,888	0.0	0.0	0.0	-	-	-
Romania	31	Rehabilitation of old communal road DC62 between Remetea Mare – Ianova; - Implemented;	14,879	196.5	50.0	0.0	297.58	75.72	-
TOTAL			69,233,871.73	30,208.88	3,761.09	0.00	18,407.93	2,291.84	-

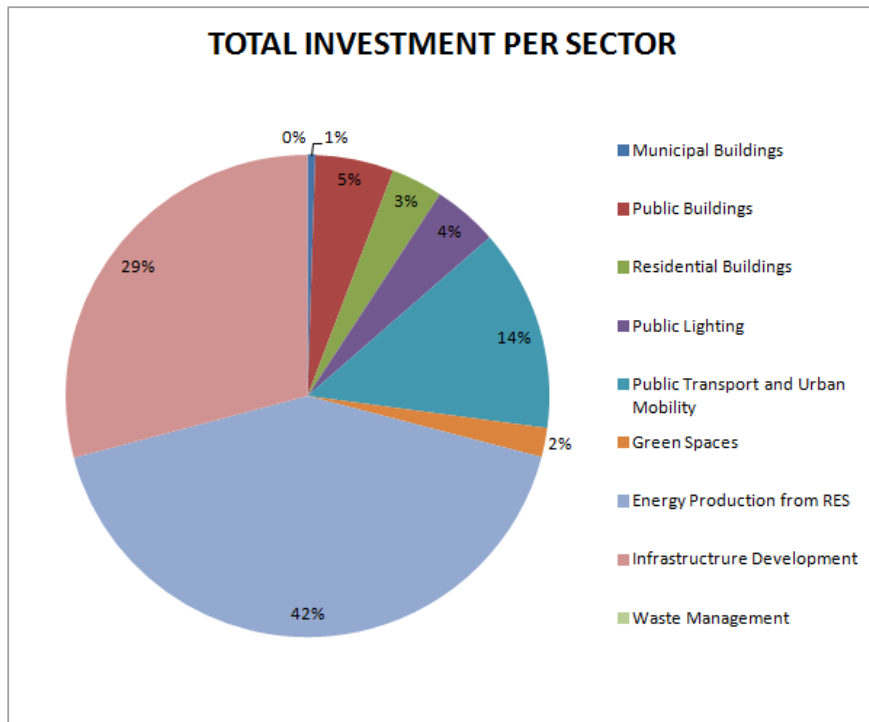
WASTE MANAGEMENT

Country	Measure/activity Status of implementation	Total investments, EUR	Energy savings, MWh/year	CO ₂ emissions reduced, tCO ₂ /year	RES used, MWh/year	Specific Costs EUR/tCO ₂	Investment Efficiency of Energy Savings EUR/MWh	Investment Efficiency of RES Production EUR/MWh
Italy	1 Improvement of the recycling waste system in Vigonza; - Implemented;	0.0	0.0	179	0.0	0.00	-	-
Italy	2 Separate waste collection in Monticello; - Implemented;	0.0	0.0	450.0	0.0	0.00	-	-
Italy	3 Separate waste collection in Sovizzo; - Implemented;	0.0	0.0	50.0	0.0	0.00	-	-
Italy	4 Separate waste collection in Creazzo; - Implemented;	0.0	0.0	153.0	0.0	0.00	-	-
Romania	5 Selective waste collection system development– Nădlac conurbation town; - Implemented	0.00	0.0	185.2	0.0	0.00	-	-
Romania	6 Door to door waste collection in Santa Maria - Implemented;	8,000	364.68	430	0.0	18.60	21.94	-
TOTAL		8,000.00	364.68	1,447.20	0.00	5.53	21.94	-

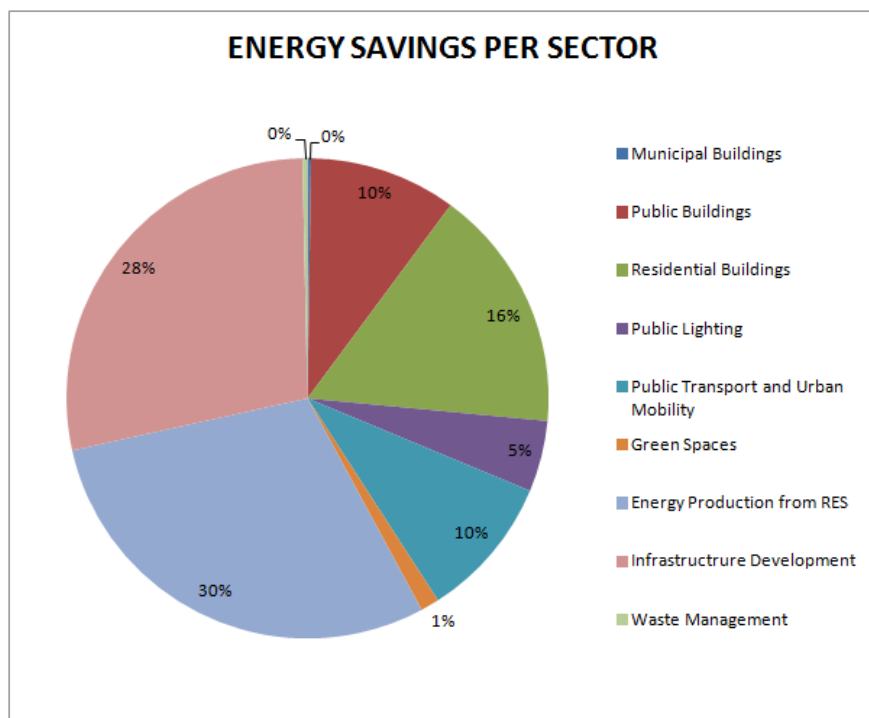
TABLE OF TOTALS PER SECTOR

Sector	Total investments, EUR	Energy savings, MWh/year	CO ₂ emissions reduced, tCO ₂ /year	RES used, MWh/year	Specific Costs EUR/tCO ₂	Investment Efficiency of Energy Savings EUR/MWh	Investment Efficiency of RES Production EUR/MWh
Municipal Buildings	1,220,916.00	245.02	65.33	18.00	18,688.44	4,982.92	67,828.67
Public Buildings	12,526,613.02	10,649.27	4,587.65	210.88	2,730.51	1,176.29	59,401.62
Residential Buildings	8,234,649.76	17,559.79	7,950.67	20.00	1,035.72	468.95	411,732.49
Public Lighting	10,362,283.00	5,128.31	2,763.73	20.00	3,749.38	2,020.60	518,114.15
Public Transport and Urban Mobility	32,146,759.57	10,308.33	13,819.52	0.00	2,326.18	3,118.52	-
Green Spaces	4,619,224.11	1,348.00	9,415.82	1,348.00	490.58	3426.72	3426.72
Energy Production from RES	99,447,930.00	31,566.00	30,354.43	48,334.60	3,276.22	3,150.48	2,057.49
Infrastructure Development	69,233,871.73	30,208.88	3,761.09	0.00	18,407.93	2,291.84	-
Waste Management	8,000.00	364.68	1,447.20	0.00	5.53	21.94	-
TOTAL	237,800,247.19	107,378.28	74,165.44	49,951.48	3,206.35	2,214.60	4760.625

CHART ANALYSIS PER SECTOR



The above chart shows the percentage of total investment per sector of measures. We can see that 42 % of the cost belongs to the RES installations for energy production. Second with 29 % of the costs is the infrastructure development sector.

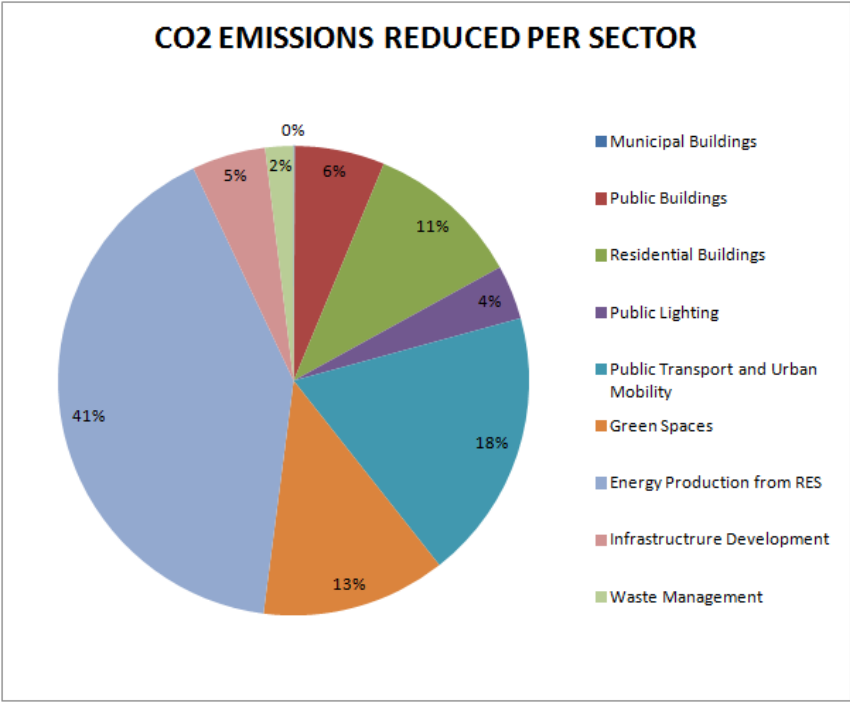


The same sectors as in the first chart lead in the energy savings with 30 % and 28 % respectively.

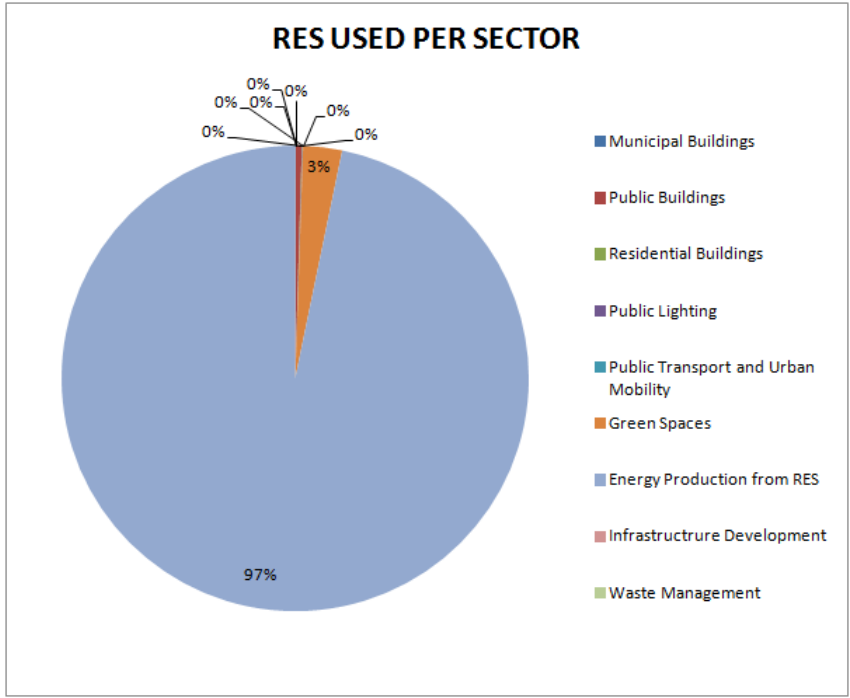
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The chart above shows the percentage of the CO₂ emissions reduction per sector. The highest impact comes from the RES installations and the second highest comes from the Public transport and urban mobility sector



The chart above shows the RES used in each sector. 97 % is used in the RES installations for energy production and 3 % is used in the Green Spaces sector.

4. CONCLUSIONS

- The most actions were implemented in the public buildings sector with a number of 46.
- Most of the investment was mobilized in the Energy Production from RES sector with € **99,447,930.00**.
- Most energy savings are succeeded in the Energy Production from RES sector with **31,566.00 MWh**
- Most CO₂ emissions reduced are in the Energy Production from RES sector with **30,354.43 tCO₂/year**.
- The Renewable Energy Sources used per year are up to **49,951.48 MWh/year**
- The highest specific cost comes from the Municipal buildings sector with **18,688.44 EUR/tCO₂**
- The highest investment efficiency of energy savings comes from the Waste Management sector with **21.94 EUR/MWh saved**
- The highest investment efficiency of RES production comes from the Energy Production from RES sector with **2,057.49 EUR/MWh produced**