

12. Integrated Environmental Management

12A. Present Situation

Vision, Strategy:

Describe if the city has a clearly defined, widely understood and supported environmental vision for the municipality, for example as part of a broader commitment to urban sustainability.

Is this vision reflected in different strategies and action plans, which include objectives and targets for individual sectors? Please list the most important strategies and plans and indicate their relationship to the overall vision.

Have your vision and the corresponding strategies been endorsed and implemented by the city council? Is there a dedicated budget for implementing the environmental vision?

Management, monitoring and evaluation:

Which stakeholders have participated in the development of the city's environmental vision and associated strategies and action plans? (e.g. contribution of civil society and citizens). What have been the practical arrangements for this?

How are the management structures of your city organised, and what management tools are used, to achieve your environmental objectives and targets? For example management circles, obligatory sustainability impact assessments of policy proposals, project structures, skills promotion, periodic evaluations, etc.

Describe the system of monitoring and reporting.

Leadership

Is the city (administration) leading by example in environmental behaviour? Describe your activities regarding environmental management systems, green public procurement, skills development, etc.

Does your city cooperate with other authorities at different levels or other organisations (regional, national, EU, international) on environmental issues? Which of these cooperation activities or projects has your city initiated or acted as leading partner? Please also refer to your participation in European funded projects and to your commitment to international initiatives, charters, etc. (Agenda 21, Aalborg Commitments, Covenant of Mayors, C20, Climate Alliance, ICLEI, EUROCITIES, etc.)

List any disadvantages resulting from historical, geographical and/or socio-economic factors which may have influenced this indicator area.

991 words

Vision of Ljubljana 2025: sustainable city

is the cornerstone of the city's development. It is reflected in all strategies which enhance it further in sustainability terms (the most important):

- ✦ **Environmental Protection Programme 2007-2013(EPP)** (revised version 2014–2020),
- ✦ **Sustainable Energy Action Plan 2020(SEAP)**,
- ✦ **Sustainable Mobility Plan 2020(SMP)**
- ✦ **Electromobility Strategy 2020**,
- ✦ **Urban Master Plan 2030**.

These documents were adopted by the Ljubljana City Council (LCC), and have funds defined for implementation (budget, PPP, state, EU). They bind us to implementation and regular reporting to the LCC. We publish reports on the websites of public companies, institutes and the City website.

The sustainable development of Ljubljana and the surrounding area is an integral part of regional strategies:

- ✦ The strategy of the **Regional Development Agency for the Ljubljana Urban Region (RRA LUR)** (established by the City) promotes the sustainable development of **26 municipalities in the region**.
- ✦ The City is the owner (87.32%) of **Public Holding Ljubljana (JHL)**, which includes the companies **Energetika Ljubljana (JPE)** and **Termoelektrarna Toplarna Ljubljana (TE-TOL)** (city's energy production and supply), **Ljubljanski potniški promet (LPP)** (public transport), **Snaga** (waste) and **Vodovod-Kanalizacija (VO-KA)** (water, wastewater). They implement the city's vision and the sustainable EU goals.
- ✦ Through the **Strategy for developing and marketing tourism in Central Slovenia 2012-2016** we promote sustainable tourism, the countryside, green spaces, and reduce traffic.

Management, monitoring, evaluation

In formulating documents we cooperate with local, regional and national stakeholders (citizens, city districts, non-governmental organisations, industry, professional circles, university, state, etc.) at workshops, presentations, round tables, exhibitions, public debates and the public gathering of proposals. Before their adoption we present the draft documents to the public once again.

Table 1: Key phases and steps in the process of drafting the Municipality Environmental Protection Programme (OPVO) and those in charge of it.

Phases and steps in the process	Those in charge	Public circles
Preliminary preparations		
decision on elaboration	mayor, city council	
formation of an operational group project task	entity responsible for drafting OPVO	
appointment of project group	drafted by the responsible entity, confirmed by the mayor	
decision on provider	proposed by the responsible entity, signed by the mayor	
Public participation		
public participation plan	drafted by the responsible entity confirmed by: project group	
implementing public participation ✦ website ✦ announcing process in public	responsible entity	
appointment of advisory group	proposed by project group, confirmed by mayor	✓
Making of the OPVO draft		
summary of situation analysis and assessment of trends	drafted by the responsible entity, confirmed by the advisory group	✓
vision and principles	advisory group	✓
priorities	advisory group	✓
plan of measures	advisory group	✓
document draft	responsible entity	✓
Public discussion and adoption		
public discussion about the OPVO draft	responsible entity	✓
adoption of OPVO	city council	
Implementation		
monitoring of the OPVO implementation	responsible entity and advisory group	✓
evaluation and supplementation of programme	responsible entity and advisory group	✓

Source: Recommendations of the Ministry of the Environment and Spatial Planning for drafting municipal environmental protection programmes 2007. **The national recommendations stem from our Environmental Protection Programme 2007-2013, which was the first such document at the national level.**

Public participation in the process of drafting documents increases the prospects of their realisation, contributes to quality, eliminates points of conflict, yields additional information from the market, creates new allies, etc.

Examples:

- ✦ The **EPP2007-2013** was co-framed with the above-listed public groups. As part of the “Ljubljana is you!” project, **we set up a web application** through which individuals contribute proposals that will be a guide for the new **EPP2014-2020**.
- ✦ Our **3D Urban planning application** is among the first in the world, which interactively shows planned projects in three dimensions: **it includes those responsible, the providers and stakeholders in the city’s spatial planning**.
- ✦ In the European sustainable mobility project “**Mobilisation of citizens for high-quality living**” (CIVITAS ELAN), as a project coordinator, together with the partners we strengthened the involvement of the general public (130 events). The suggestions obtained from professionals and the public were taken into account in the **SMP and Electromobility Strategy**.
- ✦ The **Civic Initiative Section** through expert advice enables residents the highest level of dialog and helps in dealing with various problems and initiatives (2009-2013: 20,760 initiatives, 27% environmental, 80% fulfilled).

Management Structures

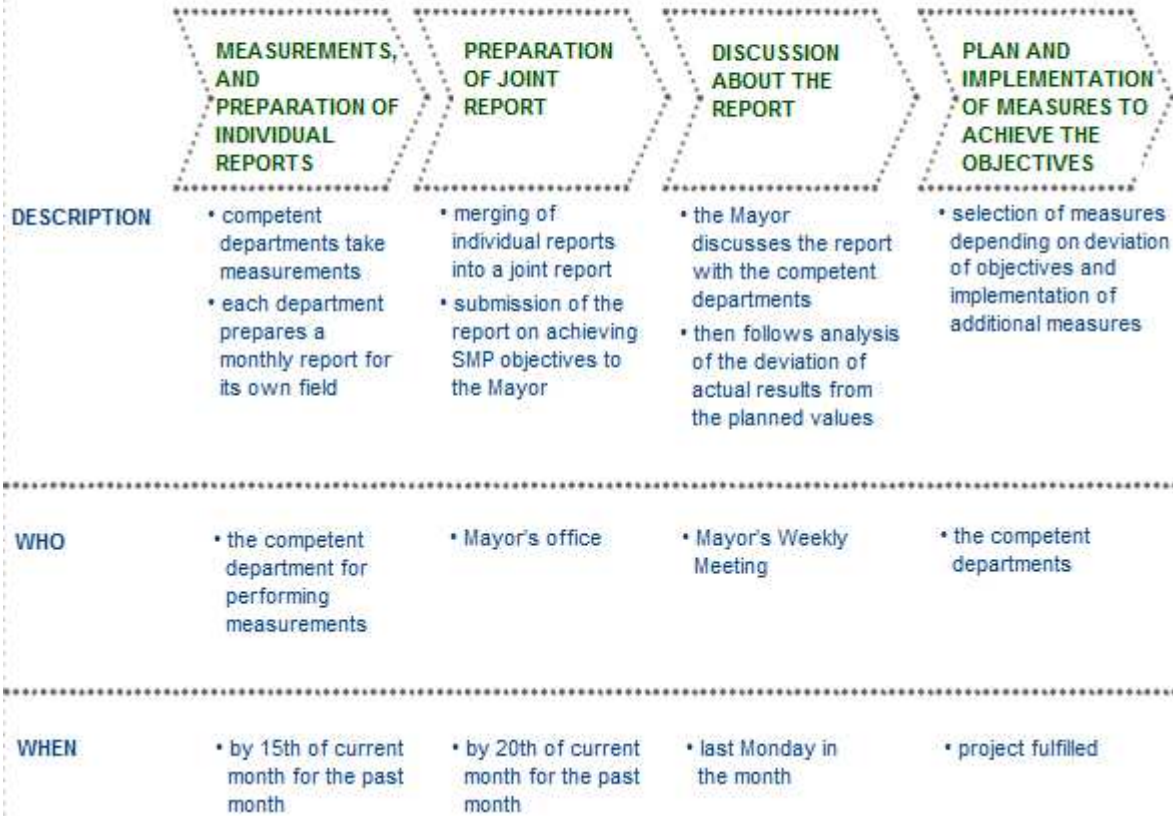
The **City Supervisory Board** oversees the use of budget funds. The **LCC, Mayor and user authorities** are bound to its recommendations and provide implementation reports.

The LCC decides on city matters and adopts acts. It has 5 commissions and 13 committees, which **adopt, discuss and propose measures**. Of the 13 committees, the work of 11 deals with sustainable development.

The **Mayor** proposes the budget, ordinances and other acts within the competence of the LCC, which he represents. He proposes the organisation, the administration working area, and defines the jobs layout in the administration. For example he defined the **Energy Manager** (responsible for SEAP implementation), the **City Manager** (heads the city centre revitalisation project) and the **Cycling Coordinator** (Integrated Cycling Strategy).

Figure 1: Example of the process of preparing reports, reporting and implementing measures to achieve the objectives of Sustainable Mobility Plan (SMP).

REPORTING ON ACHIEVEMENTS OF SUSTAINABLE MOBILITY PLAN OBJECTIVES



All public institutions and companies (106) are sustainably active. Together, we fulfill the vision: we cooperate in projects, in designing strategies, informing the public. We co-finance the companies operation.

17 districts (directly elected representatives of citizens) participate in the preparation of development programmes; the budget and other materials adopted by the LCC, and propose environmental projects.

Sustainability impact assessments of policy proposals are part of obligatory environmental reports and strategic documents (experts from various sectors participate). Some expert guidelines are co-financed with EU funds.

Promoting skills

Environmental concern is part of the employee code of conduct. We take part in education courses and promote sustainable development skills. We provide comments on legislation and propose new acts.

Table 2: Active participation and representation of colleagues from the Environmental Protection Department at courses, expert consultations and conferences.

In 2011	In 2012
<ul style="list-style-type: none"> • Numerous expert meetings at home and abroad as part of the EU project CIVITAS ELAN • International cooperation in the UHI project at expert meetings in Bologna, Modena and Stuttgart • Participation at the expert meeting in Brussels on the topic of Green Capital of Europe • Participation at the Environmental Forum EURO CITIES, Genoa • Water Days symposium 2011, Portorož • Expert consultation on drinking water quality 2011 • Workshop as part of preparing the Strategy for Slovenia's transition to a low-carbon society by 2050 • National conference on natural gas, Chamber of Commerce • Energetika.NET strategic energy conference • Energy for the Future conference • Consultation "How without a new energy act in 2012" • Conference on carbon footprint, Umanotera • Workshop on tools for predicting and communicating about air quality • Seminar on "public-private partnerships with EU funds" • Integrated waste management • International Conference Bioscience and Society • Monitoring the state of forests in Slovenia • International conference on Reviving Landscapes • Management school 	<ul style="list-style-type: none"> • Consultation "Slovenia reduces CO2: good practices" – adaptation to climate change • Seminar on "Record sheets and reports on waste" • Presentation of the decree on green procurement and the Legal Protection in Public Procurement Procedures Act • Free expert consultation – Carbon footprint and energy efficiency • "Slovenia without waste" conference • Expert workshop. Workshop on the Directive for the Sustainable Use of Pesticide in Slovenia • 1st Slovenian Waters Congress 2012 • Conference on "Ground management in urban areas" • 14th Energy Industry Days, Energy and the Environment Conference 2012 – Integration of energy and environmental solutions • Scientific meeting: FOREST and WOOD • Conference: Financing energy projects through public-private partnership in Slovenia – contractual provision of energy savings • "Slovenia reduces CO2: good practices" – School ecogardens • International meeting as part of the Covenant of Mayors • Tour of Škocjanski zatok • International conference "Benefits and challenges of public-private partnership to improve energy efficiency" • Environmental symposium – Thermal treatment of waste in Slovenia – what way forward? • Requirements and rules of the Decree on Green Public Procurement • Expert consultation: volunteering in nature conservation • Environmental meeting 2012 – Efficient with water? • European energy manager

Leadership

- ✦ We are the first Slovenian public institution with EMAS. The Environmental Protection Department joined the certification process on a pilot basis, and as part of the project City administration under one roof all other municipal departments will follow.

Table 3: Number of departments and public institutions that have obtained a certificate for environmental management systems or comparable standards.

Department, service or public institute/company	Environmental standard or guideline obtained	Being obtained
Environmental Protection Department	ISO 14001, EMAS	
Energetika Ljubljana public company (JPE)	ISO 14001, ISO 9001, ISO 17020, ISO 17025	
Termoelektrarna Toplarna Ljubljana heat and power generator (TE-TOL)	ISO 14001, ISO 9001, ISO 17025	ISO 50001
Ljubljana public transport company (LPP)	ISO 14001, OHSAS 18001, ISO 9001	
Vodovod–Kanalizacija public water company (VO-KA)	ISO 9001, ISO 17020, ISO 17025	
Snaga public waste company	ISO 9001	ISO 14001, OHSAS 18001
Zale public company	ISO 14001, OHSAS 18001, ISO 9001	
Ecoschools*	27 of 57 (47.4%)	
Eco Flag nursery schools*	60 of 121 (49.6%)	

* Ecoschools is a project of the Foundation for Environmental Education – FEE, which systematically introduces integrated environmental education into nursery schools, primary schools and secondary schools in line with the 7 steps methodology, which can be compared to ISO 14001 standards.

✦ We are **one of five European capitals** to have gone a step further. In a special study (2011 in the project “Ljubljana, smart city” together with the Jožef Stefan Institute and Siemens) we elaborated **two scenarios to reduce CO₂ emissions by 50% and 80% until 2050**. We can achieve them both.



✦ We received the national title **"Planet Earth-Friendly Municipality" in 2012 and 2013** (energy savings, forests, waste management, raising public awareness).

✦ We reduced the number of city administration locations from 21 to 11 and contributed to better EE and to reducing paper-based administration (2007). We are installing energy-saving systems, combining IT solutions and automating procedures. Since 2012 we have been using the **unified IT system for financial and accounting operations, HR records and labour costing**.

Green public procurement

Since 2011 we have implemented green procurement at a level of 70%.

Our green procurement includes:

- ✦ electricity
- ✦ food, beverages, agricultural food products and catering services,
- ✦ office and sanitary paper products,
- ✦ office IT equipment,
- ✦ refrigerators, freezers, washing and dishwashing machines, air conditioners,
- ✦ buildings construction, energy refurbishing of buildings,
- ✦ furniture,
- ✦ cleaning agents, services,
- ✦ vehicles.

The green procurement national decree has no precisely defined oversight mechanisms, so we have sent in concrete proposals for its supplementation.

European financed projects, international initiatives and charters

We cooperate with numerous stakeholders: ministries, the Slovenian Environment Agency, the Nature Protection Institute, the Slovenian Forest Service, the Slovenian Foundation for Sustainable Development, the Agriculture and Forestry Chamber, the Transport, Energy and Spatial Planning Inspectorate, the Community of Protected Natural Areas of Slovenia, the Slovenian Academy of Sciences and Arts, the University of Ljubljana, etc.

Table 4: Some European projects and commitments to international initiatives and charters

Some of the major European financed projects				
Project name	Area	No. of partners	Funds	Period
BUILD UP Skills Slovenia	Sustainable mobility	Over 30 participants (Public Housing Fund (PHF))	European (7th RTD Framework Programme)	04/2010 - 03/2013
CATCH_MR	Sustainable mobility	12 (RRA LUR)	Total budget: €2.004.601 RRA LUR project value: €108.310 EU cofinancing: €92.063 (85%) SVLR budget: €10.831 (10%) RRA LUR funds: €5.415 (5%)	01/2010 - 12/2012
CC-Ware	Water protection and mitigating water resources vulnerability	12 (VO-KA, JHL)	Total budget: €85.000 ERDF budget: €55.250 VO-KA funds: €9.750	12/2012 - 11/2014
CC-Waters	Improvement of integrated water management and flood risk prevention	18 (VO-KA, JHL)	Project Budget: €4.224.503 ERDF budget: €3.903.233 IPA budget: €321.270	05/2009 - 04/2012
CHAMP	Sustainable mobility	8 cities (The City of Ljubljana (COL))	Intelligent Energy Europe programme	10/2011 - 09/2014
CLUNET (PRO-INNO Initiative)	Sustainable cluster development initiative	14 (RRA LUR)	Total budget: €2.022.000 Slovene Partner budget: €106.660 EU financing: 100%	09/2006 - 08/2009
Creative Cities	Green Paper on Cultural and Creative Industries	11 (RRA LUR)	Total budget: €2.555.288 RRA LUR project value: €305.137 ERDF budget: €245.769 (85%) RRA LUR funds: €43.370 (15%)	01/2010 - 05/2013
Ene field	Energy Efficiency Fuel Cells x Combined Heat and Power	14 partners: up to 1.000 systems will be deployed across 12 EU Member States (JPE, JHL)	Own participation: €27.000 The EU covers the costs of assembly, maintenance and testing that are not included in this amount but relate to the entire project.	09/2011 - 08/2016
EU 2020 Gong local	Energy and sustainable transport	14 (RRA LUR)	Total budget: €1.546.184 RRA LUR project value: €122.933 EU budget: €104.493 (85%) SVLR budget: €12.293 (10%) RRA LUR funds: €5.146 (5%)	10/2010 - 09/2012
INNO-DEAL (PRO-INNO Initiative)	Innovative small and medium sized companies (start-up and spin-off)	12 (RRA LUR)	Total budget: €2.148.000 Slovene partner budget: €146.884 EU financing: 100%	09/2006 - 08/2009
POLYS	Sustainable mobility	10 (RRA LUR)	Total budget: €1.996.161 RRA LUR project value: €193.669 EU cofinancing: €147.188 (76%) RRA LUR funds: €46.481 (24%)	09/2011 - 08/2014
RAIL4SEE	Sustainable mobility	28 (RRA LUR)	Total budget: €4.826.900 RRA LUR project value: €191.500 EU cofinancing: €162.775 (85%) RRA LUR funds: €28.725 (15%)	05/2012 - 09/2014
RAILHUC	Sustainable mobility	12 (RRA LUR)	Total budget: €3.347.822 RRA LUR project value: €218.610 EU cofinancing: €185.819 (85%) RRA LUR funds: €32.791 (15%)	10/2011 - 09/2014
REBECEE	Energy Efficiency	8 cities (PHF)	Intelligent Energy Europe programme	2009-2009
RURBANCE	Sustainable development of Alpine territories	13 (RRA LUR)	Total budget: €2.482.000 Total EU cofinancing: €1.825.520 EU cofinancing: €114.000 (76%) RRA LUR cofinancing: €36.000 (24%) RRA LUR budget: €150.000 (100%)	07/2014 - 01/2012
Second Chance	Capitalising on Cultural Resources for More Attractive Cities and Regions (development of degraded areas)	10 (COL)	Total budget: €2.892.335 ERDF contribution: €2.275.611	01/2010 - 09/2013
SmartMEDParks	Energy Efficiency in Technology parks	9 (TPL)	ERDF funds of the European Commission	2013-2015
TURAS	Improvement of sustainable performance	Researchers, local communities, businesses from 16 cities in 11 different European countries (RRA LUR)	Total budget: €8.911.736 RRA LUR project value: €137.600 EU cofinancing: €103.800 (75%) RRA LUR funds: €33.800 (25%)	10/2011 - 10/2016
UHI	Urban Heat Islands	17 (8 project pilot areas) (COL)	This project is implemented through the CENTRAL EUROPE Programme co-financed by the ERDF	05/2011 - 04/2014
Some European projects in which the City Administration, public companies and institutes play a leading or coordinating role or were initiators				
Project name	Area	Partners	Funds	Period
CIVITAS ELAN	Sustainable mobility	5 cities from 5 European countries and 11 local partners (COL)	Seventh Framework Programme	2008-2012
European mobility week	Sustainable mobility	8 main partners in Ljubljana (COL, JHL, LPP)	The City of Ljubljana and partners	Since 2002
INCCME	Water management	6 (VO-KA, JHL)	Total budget: €1.804.915 EU cofinancing: €834.860 (47%) VO-KA, main coordinator: €92.305 COL: €330.000 Ministry of the Environment and Spatial Planning: €330.000 Other five partners: €310.055	01/2009 - 12/2012
Ljubljana Urban Region P&R Hubs Network	Sustainable mobility	14 (RRA LUR)	Partly financed by the European Regional Development Fund, partly by 13 municipalities of the Ljubljana Urban Region.	03/2011 - 09/2013
Regional Waste Management Centre - RCERO Ljubljana	Waste management	32 (Snaga, JHL, COL)	Total budget: 155 million € Cohesion Fund: 65.88% State budget: 14% Tax for environmental pollution caused by waste disposal: 10.11% COL and co-investors: 10%	2008 - 2015
Some international initiatives and documents to which we are committed, and international associations in which we are members				
<ul style="list-style-type: none"> Aalborg Charter of 1996 and Aalborg+10 of 2004 AECM Age Friendly Cities - WHO Age Platform Europe Agenda 21 CEMR - Council of European Municipalities and Regions Cities for Children Cities for Mobility CIVINET Slovenia - Croatia Climate Alliance CLRAE - The Congress of Local and Regional Authorities Committee of the Regions - European Union ECSSITE - The European Network of Science Centres and Museums Science Communications Professionals Energie-Cités ENO Green Cities Network ERRIN - The European Regions Research and Innovation Network EURADA - European Association of Regional Development Agencies Eurocities Euroheat/Power Evropa 2020 in Declaration on the central role of cities as drivers of inclusive, smart and sustainable growth European Healthy Cities Network - under the aegis of the World Health Organisation Global Cities Dialogue IAP2 - International Association for Public Participation ICLEI - Local Governments for Sustainability International Water Association Major Cities of Europe IT Users group Mreža CIVITAS - CIVITAS Forum network Right2Water EU Strategy for Sustainable Development EU Thematic Strategy on the Urban Environment UCEU 				
Some national initiatives and documents to which we are committed				
<ul style="list-style-type: none"> Agenda 21 for Slovenia Resolution on the National Environmental Action Plan 2005-2012 Thematic Strategy on the Urban Environment of the Republic of Slovenia Slovenia's Development Strategy steering the country's sustainable development Rules on the Efficient Use of Energy in Buildings All green legislation of Slovenia In accordance with the Recommendations of the Ministry of the Environment and Spatial Planning for drafting municipal environmental protection programmes in Slovenia, we actively participate in forming national and strategic documents, such as: <ul style="list-style-type: none"> regional development programme, rural development programme, spatial development strategy, Slovenia's development strategy, national development programme. 				

12B. Implementation

Describe the organisational structure of the city administration and show how the environmental strategies are embedded in the organisation. Please include an organogram.

Which department or political body is the driving force behind the environmental vision?

What is the total budget of your city for the current financial year and how much is allocated for environmental activities? Is this budget increasing or decreasing?

Innovative instruments

Does the city use, in its environmental policy, innovative instruments like 'nudges':- citizen participation in environmental enforcement, awareness-raising through social media, innovative financing, etc?

To what extent do you evaluate the progress of your policies / strategies / projects and do you adopt them according to findings?

398 words

The City of Ljubljana Organisational Structure

All bodies listed in the diagram are pursuing the Vision Ljubljana 2025. They are regularly implementing and proposing changes in their own field of sustainability.

Figure 2: Diagram of the City of Ljubljana



Budget funds in 2013 amount to €319 million, of which €175 million is allocated for sustainability(55%). These funds are increasing yearly.

Innovative instruments

For raising sustainable awareness we use websites, social networks and mobile applications(more than 40) based on two-way interactive communication. For them we received awards on the national, international and world scale.

Almost every major project is presented on social networks, or we have developed an interactive application for it (e.g.3D Urban Planning, Ljubljana is you!).

Other instruments:

- ✦ **User support centres**, open days, free SMS services;
- ✦ **Media presence, publications,etc.;**
- ✦ **Workshops, lectures for children;**
- ✦ **Awareness-raising actions**(Clean-up campaign “For a More Beautiful Ljubljana”(since 2001) runs every year for an entire month, with the involvement of 13 tourism societies and 20,000 people; European Mobility Week and Car-Free Day(since 2001), European Sustainable Energy Week(since 2011).
- ✦ **International/national/regional fairs, conferences, festivals**(some of the biggest):
 - **Sustainable traditional international fairs** at the Ljubljana Exhibition and Convention Centre(established by the City) (see Indicator 10A).
 - **World Engineering Forum in Ljubljana on sustainable construction for people 2012: more than 70 countries.**
 - In cooperation with the GoForeSight Institute, for the third year now we are organising the international conference **Ljubljana Forum** to promote opportunities for future sustainable development of cities and metropolitan areas of the South-East European region. Stakeholders from all spheres in Slovenia and abroad participate and attend.
- ✦ **Public calls for sustainable development for NGOs and private individuals**(energy, culture (degraded areas component), education(Ecoschools), sports(clubs are obligated to contribute to sustainable development), environmental protection, welfare(social entrepreneurship),etc.)

Results of measures and satisfaction of residents

We assess the progress of our policies based on sustainability studies, measurements of measures effectiveness, public opinion surveys, awards received. We adopt policies according to findings (e.g.SEAP).

Table 5: Overview of effectiveness of measures in Ljubljana				
CO / SO2 / PM10 particles	Baseline state 2003	Comparative state 2012	Change	
CO (mg/m3) - average annual (Ljubljana Bežigrad measuring station)	0.9	0.5	-44% reduction	
SO2 (µg/m3) - max. daily (Ljubljana Bežigrad measuring station)	59	25	-58% reduction	
PM10 particles (µg/m3) - average annual (Ljubljana Bežigrad measuring station)	46	26	-44% reduction	
Connection of buildings in the City of Ljubljana to the district heating and natural gas distribution systems	Cumulative from 1991 to 2012		Change	
	In the case of non-connection	After actual connection		
Energy consumption (MWh)	18,608,817	13,694,494	-26% reduction	
CO2 emissions (tons)	4,790,263	3,511,556	-27% reduction	
Energy efficiency	Baseline state 2007	Comparative state 2012	Change	
Solar power plants - data for entire area of the City of Ljubljana	power 25.2 kW	power 3792.56 kW	14,950% growth	
	Baseline state 2000	Comparative state 2013	Change	
Nominal power of lighting	9 MW	2.95 MW	-67% reduction	
Waste	Baseline state 2007	Comparative state 2012	Change	Plan in 2016
Organic waste collected (tons) 94% of residents are included in the organic waste collection system.	7,561	18,252	141% growth	20,000
Organic waste (number of containers)	14,016	19,165	37% growth	21,000
Separately collected fractions (paper + glass + packaging) at collection points (in tons)	9,013	22,311	148% growth	30,000
Number of collection points for paper, glass and packaging	1,515	2,535	67% growth	2,400 (the aim has already been exceeded)
Hazardous household waste collected (tons)	60	111	85% growth	160
Waste collected in the collection centre (tons)	4,286	6,252	46% growth	8,000
Bulk waste (tons)	6,436	4,590	-29% reduction	6,000
Share of separated waste (%)	25%	47%	22% growth	59
	Baseline state 2009	Comparative state 2012	Change	Plan in 2016
Share of landfill waste	73%	53%	-27% reduction	40%
Mixed municipal waste	296 kg/inhabitant	187.7 kg/inhabitant	-37% reduction	150 kg/inhabitant
Wastewater	Baseline state 2004	Comparative state 2012	Change	
Quantity of wastewater treated in a secondary treatment phase	1,530,227 m3 treated water	29,464,104 m3 treated water	1,825% growth	
Share of buildings connected to the sewerage system	68.84%	87.3%	18.46% growth	
Connected buildings	25,147	29,909	19% growth	
All buildings	36,528	39,282	8% growth	
Water	Baseline state 1994	Comparative state 2012	Change	
Reduction in quantities of unsold drinking water	30,084,388 m3 unsold water	10,324,281 m3 unsold water	-66% reduction	
	Baseline state 1991	Comparative state 2011	Change	
Water consumption per inhabitant (data for 5 peripheral municipalities and Ljubljana)	108.8 m3	68.3 m3	-37% reduction	
Transport Research is currently under way on the transport habits of residents of the City of Ljubljana and 26 municipalities of the Ljubljana Urban Region, and the results will be available in January 2014.	Baseline state 2012	Comparative state 2013	Change	
Bicike(LJ) - number of uses	611,218	1,610,627	164% growth	
	Baseline state 2007	Comparative state 2013	Change	
Environmental/pedestrian zone in the city centre	12,750 m2	91,244 m2	616% growth in pedestrian surface area	
	Baseline state 2007	Comparative state 2011	Change	
Railway transport (no. of passengers)	3,161,997	3,281,702	4% growth	
Length of bus routes (km)	251	358	43% growth	
	Baseline state 2009	Comparative state 2012	Change	
Number of passengers using LPP public transport after introduction of Urbana card and integration of new bus services	2,013,071	2,598,392	29% growth	
	Baseline state 2003	Comparative state 2012	Change	
Distance from closest bus station (95% coverage in city)				
Less than 500 m	93%	96%	3% growth	
Less than 300 m	88%	92%	4% growth	

Eurobarometer, the European Commission's survey on the quality of life in 79 cities (in November and December 2012 522 Ljubljana residents were surveyed) indicated that:

Table 6: Some results of the European Commission's Eurobarometer survey on the quality of life in Ljubljana

Area	Satisfied citizens
Living in the city	90% (14 th place)
Public transport	78% (11 th place)
Educational facilities	87% (1 st place)
State of the streets and buildings in the neighbourhood	82% (5 th place)
Public spaces (markets, squares, pedestrian areas)	85% (6 th place)
Quality of the air	61% (12 th place)
Noise level	73% (6 th place)
Cleanliness	87% (2 nd place)
Green spaces (parks and gardens)	86% (9 th place)
Ljubljana is committed to fight against climate change (EE, green transport, etc.)	64% (3 rd place)
The place of living	95% (6 th place)

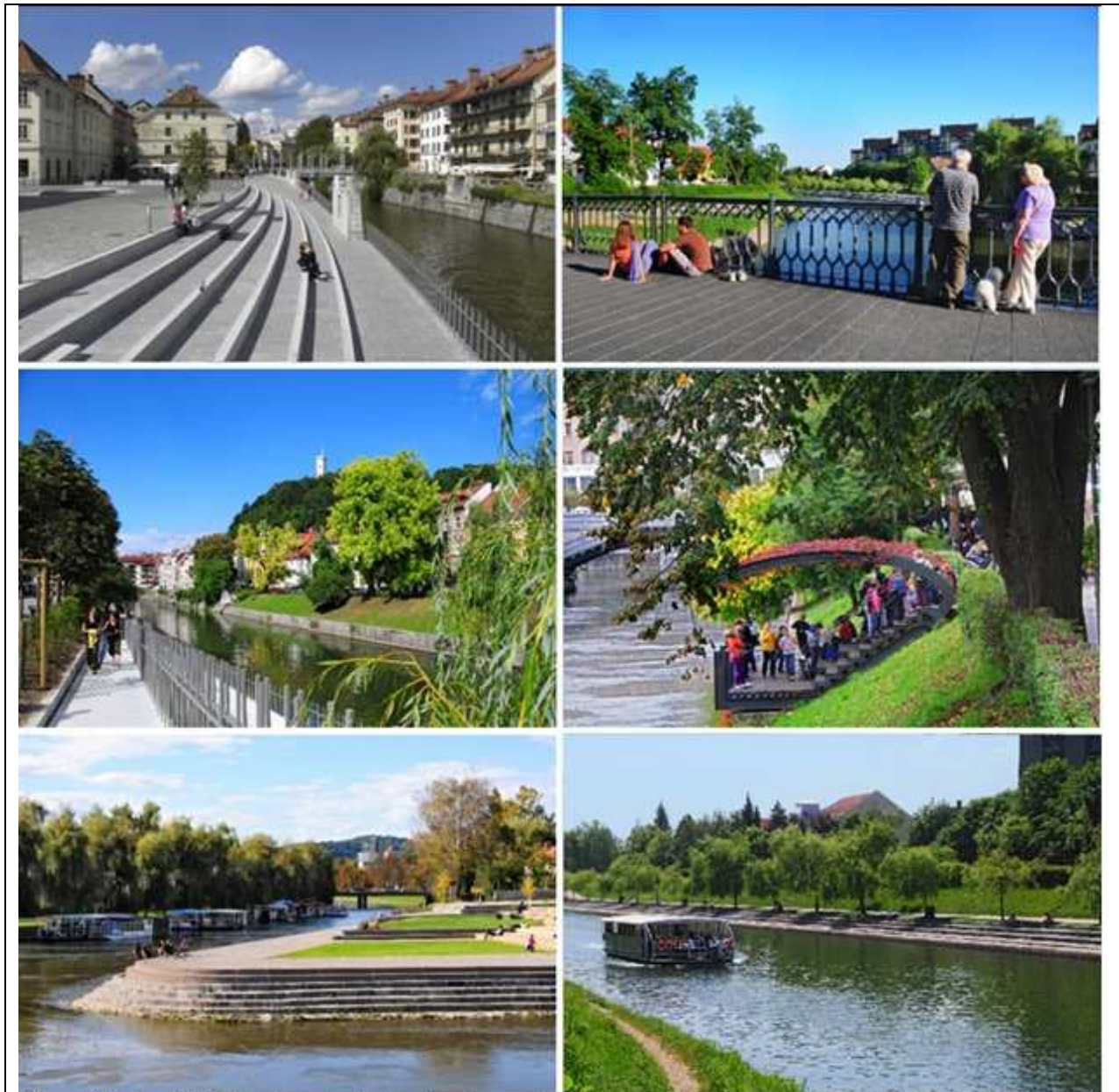


Figure 3: The “Refurbishment of the Banks and Bridges of the River Ljubljanica” project – part of the ecological zone – was chosen from among 347 projects from 36 European countries for the main European Prize for Urban Public Space 2012. We have carried out comprehensive renovation of the city centre, shortening routes for pedestrians and cyclists.



Figure 4: "Access City Award 2012": in competition with 114 European cities we ranked among the top eight and received a special recognition from the European Commission for improving access in transport and related infrastructure.



Figure 5: Through the Bicike(LJ) bikesharing system (2011), we are effectively establishing cycling infrastructure and reducing harmful emissions (national good practice initiative "Slovenia reduces CO₂"). In October 2013 we have recorded above 1,6 million uses. The system includes 33 stands and 308 bicycles. The first hour of use is free, with free rides accounting for 98.40% of the total.



Figure 6: In 2009 Ljubljana was one of the first European cities to introduce Urbana smart city card (integrated payment system for city services: LPP, P&R system, citybikes, library services, etc.). Urbana and Bicike(LJ) have received an international award in the field of information society 2011/12 impacting the general public.

Green areas

- ✦ **More than 20% of the entire City area is protected.**
- ✦ **More than 46% of the City is covered in native forest.**
- ✦ **We created 40hectares of new parks and planted almost 2,000 new trees(2008-2012).**
- ✦ **Almost 75% of all surfaces in Ljubljana are green. For keeping them green, we were rewarded with the title **Greenest Urban Municipality in Slovenia 2011.****

12C. Future Plans

Describe the short and long term objectives for the integrated management of environmental policy and the proposed approach for their achievement.

Describe present and future flagship projects that demonstrate your commitment to an integrated management of the urban environment.

Demonstrate Public Awareness of this bid i.e. public consultation, available to read etc.

753 words

Sustainable Local Action Plan 2020 for the Central Slovenia region

was created as part of the project **EU2020 Going Local** in partnership with RRA LUR (2012). It incorporates recommendations for achieving the EU's sustainable development goals (**estimate: traffic €9,600,000, EE €4,250,000, RES €1,350,000**)

Sustainable mobility targets

✦ The SMP aims, **by 2015, to increase walking by 20%, cycling by 40%, bus journeys by 50%, and to reduce the number of car journeys by 20%. By 2020** we will improve the distribution of mobility: **a third by public transport, a third by non-motorised means and a third by private vehicles.**

✦ With its ten measures the **Electromobility Strategy (2013)** represents the starting point for developing and fostering electromobility. By the end of 2015 we plan to introduce pilot projects to promote the use of EV. The charging infrastructure construction will be pursued. Funds will be provided as part of the available budget funds.

✦ **Greening the city vehicle fleet**

For 2014 the City administration is preparing a 5-year leasing of official vehicles (45 CNG vehicles).

By 2017 we will renew the LPP fleet with 80CNG vehicles (approx. **€29,000,000**; cofinancing: LPP, City of Ljubljana, EU). We will reduce PM10 emissions by more than 17tons a year. **We will upgrade existing stations and open an additional charging station.**

✦ We will introduce a **single ticket system in the LUR area** by September 2014. We are working on integration with the Slovenian railway operator.

✦ **LUR P&R Hubs Network**

The project brings together 16 LUR municipalities (financially supported by EU). **we are planning a further 23 locations** (around **€48 million**).

SEAP 2020, a modern concept of energy supply and use:

- ✦ intensive introduction of RES technology and substitution of environmentally less suitable fossil fuels with RES or more acceptable energy products,
- ✦ improving EE at manufacturers, energy converters and among consumers.

Effects:

- ✦ **reductions of final energy consumption in the use of heat in buildings and fuels in transport of 16%;**

- ✦ **more than 20% share of RES in final energy consumption;**
- ✦ **with 30% CO₂ reduction** we will exceed the Covenant of Mayors' objective;
- ✦ in 2013 we have started a project **Energy Retrofit of Public Buildings in the City of Ljubljana (EOL)**, co-financed through the ELENA technical assistance. With a grant amounting to €1,348,560 we will introduce a modern **energy management and prepare the baselines for investments in EE and RES projects for public buildings. The EOL investments will be between €28–50 million**, among other possibilities implemented through **energy contracting**. Project completion 2015.

Being drafted

we are preparing a new action plan with measures for air quality (with the state), an operational programme for noise protection and guidance on planning, planting and care of plants in public areas.

City administration under one roof: sustainable development project

According to the vision, we plan a a centralised EE building for the city administration, which currently operates at 11 locations across the city. The new building will eliminate unnecessary journeys by city and state officials, who will work under a single roof, and by all citizens, who will be able to obtain all services at one site. **The investment will have a positive impact on the environment, it will contribute to preserving cultural heritage and renewed use of brownfield area and will promote EE and sustainable mobility.**

RES projects

- ✦ At **RCERO Ljubljana (approx. €155 million), the biggest environmental project in Slovenia**, the trial operation of **waste processing facilities** starts in 2015, by the latest technological guidelines. **600,000 residents of 33 municipalities** will dispose just 20% of environmentally non-hazardous waste after recycling, while 80% will be reused as raw materials or energy products. The plant will be connected to the district heating system. Through energy recovery from waste we will generate electricity.
- ✦ **Waste to energy:** a project under the state jurisdiction (use of local RES to cogenerate heat and electricity). The facility construction with a capacity of 30MW_{th} should be connected to the city district heating system.
- ✦ **Construction of the C0 connecting sewer and phase III of the Ljubljana Central Treatment Plant** (2013-2015, approx. €85 million, EU cofinancing) are one of the largest environmental projects in Ljubljana. This will enable the connection of new users to the public sewer system, optimisation of the system and processes, efficient use of facility capacities and greater energy self-supply.

Informing the public

We have set out evidence of awareness-raising and active involvement of the public in all stages of project implementation in 12A and 12B.

Public presentations, discussions (example: RCERO Ljubljana, Urban Master Plan) are compulsory before adopting strategic documents.

Another noteworthy example:

Table 7: At our request University Center for Spatial Sociology conducted a study on the quality of life in Ljubljana (2010). As part of a survey we asked respondents how certain planned urban projects would impact quality of life in the city. Below we give a few examples.

Project name	Negatively	Neither positively nor negatively	Positively	Average of 1-5
Stožice sports, shopping and business centre	12.5%	21.2%	66.3%	3.68
The new "Emonika" railway station with shopping, residential, entertainment and business centre	7.6%	18.2%	74.2%	3.84
Construction of tram lines	10.4%	13.8%	75.8%	3.93
Underground railway tracks through the city	10.1%	17.7%	72.2%	3.90
Smartinska District Partnership, which will link the city centre with the biggest shopping centre in Ljubljana	8%	24.1%	67.9%	3.78
Ilinja swimming complex in Tivoli	1.6%	9.9%	85.5%	4.22

12D. References

List supporting documentation, adding links where possible. Further detail may be requested during the clarification phase. Documentation should not be forwarded at this stage.

342 words

WEBSITES OF THE CITY OF LJUBLJANA AND PUBLIC COMPANIES:

Ljubljana, green capital: <http://www.ljubljana.si/en/green-capital/>
 The City of Ljubljana on Facebook: www.facebook.com/MOLjubljana
 RRA LUR: <http://www.rralur.si/en/>
 JHL: <http://www.jhl.si/en/holding>
 JPE: <http://www.jhl.si/en/energetika>
 TE-TOL: <http://www.te-tol.si/en/>
 LPP: <http://www.lpp.si/en>
 Snaga: <http://www.jhl.si/en/snaga>
 VO-KA: <http://www.vo-ka.si/en>
 The Public Housing Fund of the City of Ljubljana: <http://www.jssmol.si/domov/>
 Turizem Ljubljana institute: <http://www.visitljubljana.com>
 Commercial Fairground: <http://www.visitljubljana.com>
 Ljubljana Technology Park: <http://www.tp-lj.si/?lang=en>

DOCUMENTS:

Vision of Ljubljana 2025: <http://www.ljubljana.si/en/municipality/vision-ljubljana/>
 SEAP: <http://www.ljubljana.si/si/zivljenje-v-ljubljani/okolje-prostor-bivanje/lokalni-energetski-koncept/>
 Sustainable Mobility Plan: <http://www.ljubljana.si/file/1172768/6.-toka---prometna-politika-mestne-obine-ljubljana1.pdf>
 Electromobility Strategy: <http://www.ljubljana.si/file/1307716/6.-elektromobilnost-18-4-13-konna-verzija.pdf>
 Strategic part of the Urban Master Plan(2010-2030):
https://urbanizem.ljubljana.si/index3/OPN_MOL_SD.htm
 City of Ljubljana Urban Master Plan – Implementing Plan:
<http://www.ljubljana.si/en/living-in-ljubljana/focus/73844/detail.html>
 Summary of Environmental Protection Programme 2007-2013: Ready for Tomorrow:
<http://www.ljubljana.si/en/living-in-ljubljana/focus/73844/detail.html>
 Sustainable Urban Infrastructure Ljubljana – A View to 2050:
http://www.ljubljanapametnomesto.si/ljubljana_2050
 Local Action Plan of RRA LUR:

http://www.rralur.si/fileadmin/user_upload/razvojni_dokumenti/RRP_LUR_2014-2020/RRA_LUR_LAP.pdf

Strategy for developing and marketing tourism in Central Slovenia 2012-2016:

<http://www.visitljubljana.com/si/turizem-ljubljana/rdo-osrednja-slovenija/razvojni-dokumenti/>

City budget: <http://www.ljubljana.si/si/mol/proracun/>

JPE Environmental Report (2011): http://www.jhl.si/upload/doc/5140_Okoljsko_porocilo_2011.pdf

PUBLIC UNVEILINGS:

<http://www.ljubljana.si/si/mol/mestna-uprava/oddelki/urejanje-prostora/javne-razgrnitve/>

RCERO Ljubljana: <http://www.ljubljana.si/si/mol/mestna-uprava/oddelki/urejanje-prostora/javne-razgrnitve/84472/detail.html>

City administration under one roof: <http://www.ljubljana.si/si/zivljenje-v-ljubljani/v-srediscu/21157/detail.html>

AWARDS:

Planet Earth-friendly municipality 2012: <http://www.ljubljana.si/si/ljubljana/ljubljana-nosilka-priznanj/79580/detail.html>

European Prize for Urban Public Space for Refurbishment of the Banks and Bridges of the Ljubljana: <http://www.publicspace.org/en/prize/2012>

Access City Award 2012: <http://www.ljubljana.si/si/mol/access-city-award-2012/>

Slovenia reduces CO2: <http://www.slovenija-co2.si/#>

Greenest Municipality in 2011: <http://www.zelenaslovenija.si/natecaj-2011/1187-zelena-obicna-2011>

INFORMING, ENCOURAGING AND INVOLVING A WIDE VARIETY OF PUBLIC GROUPS:

3D Urban Planning: <https://urbanizem.ljubljana.si/lab/3durbanizem/3d.htm>

TE-TOL mobile portal: <http://www.youtube.com/watch?v=Zc9786Ev0Fc>

Online Citizens' Suggestions service: <https://urbanizem.ljubljana.si/PobudeMescanov2/>

Energy Advice Office: <http://gcs.gi-zrmk.si/Svetovanje/index.html>

JPE public call 2013:

http://energetika.jhl.si/sites/default/files/energetika_lj_si/stran/datoteke/zlozenka_ureove_2013_w_eb.pdf

Expert consultation:

http://voka.jhl.si/sites/default/files/field_datoteke/4232_vabilo_na_strokovni_posvet_podnebni_ek_stremi_in_varna_oskrba_s_pitno_vodo.pdf

Useful advice regarding sustainability:

<http://www.jhl.si/sites/default/files/upload/holding/datoteke/7-plus-1.pdf>

My waste: <http://www.mojiodpadki.si/main>

Open days: <http://www.snaga.si/aktualno/dan-odprtih-vrat-na-snagi-petek-31-maj-ob-12-uri>

Primavoda water website: <http://www.primavoda.si/>

Cevko water portal: <http://www.cevko.si/>

European Mobility Week: <http://www.ljubljana.si/en/living-in-ljubljana/focus/84286/detail.html>

Mobility shops: <http://www.ljubljana.si/en/municipality/news/76338/detail.html>

Self-sufficient residential cell: www.ee.fs.uni-lj.si/celica

European Sustainable Energy Week 2012: <http://www.ljubljana.si/si/mol/novice/78061/detail.html>

Ljubljana Forum: <http://www.ljubljanaforum.org/>

Investment projects: <http://ljublanski.projekti.si/#>

EUROPEAN PROJECTS:

Bike Intermodal: http://www.transport-research.info/web/projects/project_details.cfm?ID=41604

BUILD UP Skills Slovenia: http://www.eaci-projects.eu/eee/page/Page.jsp?op=project_detail&prid=2522

CATCH_MR: <http://www.rralur.si/aktualni-projekti/catch-mr/>

CCAps: <http://www.rralur.si/en/projects/ccalps/>

CC-Ware: <http://www.ccware.eu/>

CC-Waters:

http://www.ccwaters.eu/index.php?option=com_content&view=article&id=82&Itemid=103&56b00

064c3e6beb26da3b96d1578b92a=eogkljbu
CHAMP: <http://www.champ-cycling.eu/en/The-Champs/Ljubljana/English/Ljubljana-local-UK>
CIVITAS ELAN: <http://www.civitasljubljana.si/>
CLUNET: <http://www.rralur.si/en/koncani-projekti/clunet/>
Creative cities: <http://www.rralur.si/en/projects/creative-cities/>
Ene.field: <http://enefield.eu/stationary-applications/>
EU 2020 Going local:
<http://www.eu2020goinglocal.eu//subpage.aspx?MenuID=69647&showmenuid=68751&partner=1>
INCOME: www.life-income.si
INNO-DEAL: <http://www.rralur.si/en/koncani-projekti/inno-deal/>
POLY5: <http://www.rralur.si/en/projects/poly5/>
RAIL4SEE: <http://rail4see.eu/about-rail4see/>
RAILHUC: <http://www.railhuc.eu/>
REBCEE: <http://www.finance.si/215268/Kako-privarcevati-energijo?cookietime=1378467008;>
RURBANCE: <http://www.rralur.si/en/projects/rurbance/>
SmartMEDParks: <http://www.iat.es/2013/02/smart-med-parks-improvement-energy-efficiency-med/?lang=en>
TURAS: <http://www.rralur.si/en/projects/turas/>
UHI: <http://www.eu-uhi.eu/index.php?comp=content&task=show&id=21>
Second Chance: <http://www.secondchanceproject.eu/static/ljubljana.php>

OTHER PROJECTS:

Bicike(LJ): <http://en.bicikelj.si/>
Urbana: <http://www.ljubljana.si/en/living-in-ljubljana/transport-in-ljubljana/public-transport-in-ljubljana/>
Wireless internet: <http://www.wifreeljubljana.si/en>
RCERO Ljubljana: <http://www.rcero-ljubljana.eu/index.html>
Ljubljana Central Treatment Plant: <http://www.vo-ka.si/en/about-company/central-treatment-plant-ljubljana>
List of new solar power plants: <http://pv.fe.uni-lj.si/Seseznam.aspx>