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FUTURE OF CITIES

ENERGY EFFICIENCY & being

Conference & Society 2.0

Sentember 20th 21st 2012 • Liubliana Castle, Slovenia

Sustainable development Carbon free Green society Nature preservation

Environment protection Learning organisation Corporate social responsibility

Collaboration **Symbiotic relation** Socially responsible investing

Inclusive business Energy efficiency Funcionalism Archology Holism Social inclusion



Summary report on

FUTURE OF CITIES

ENERGY EFFICIENCY

& being

ALWAYS ON-LINE

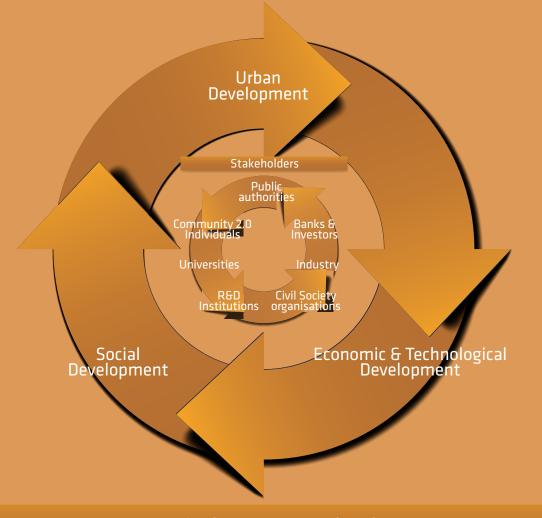
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Evolving Model on Future of Cities

Future of cities

Sustainability enviroment - economy / technology - society



Foresight Knowledge

Shared Leadership Introduction

Dear Reader.

In this challenging time of economic & social crisis in 2012, we should have in mind that our future depends on our actions of today. We should, therefore, identify the areas to work together in order to create better future for us and for younger generations, the so called 'Always on Line' generation.

Urban areas play significant role in addressing the challenges we are facing. Therefore Ljubljana Forum 2012 gathered various stakeholders to work together towards finding new innovative solutions and creating opportunities for future development of cities.

With the aim to move forward, we shared our views regarding these issues with 160 guests from 29 different countries. At the same time, many online viewers from all around the world had the opportunity to actively participate through Ljubljana Forum Community 2.0 communication platform.

5 Mayors and 2 vice Mayors of European capital cities exchanged good practice cases of smart green technologies in their cities and presented future development plans. In the annex of the following report you can find 7 city reports.

Think forward & co-create the Cities of the Future!!!

In order to move towards energy efficient, intelligent and always on-line cities of the future, we created synergies among various stakeholders involved. This will enable the creation of new innovative jobs and creative business models for new economic & societal development.

While reading the report, THINK ABOUT your concept, business idea, NGO action, urban development, research idea and innovative application for connected cities. We are giving YOU the opportunity to create the future, share ideas and suggest topics for Ljubljana Forum 2013.

You are invited to participate, share ideas, comments, questions and opinions on Future of Cities at www.ljubljana-forum.org. We will award the most innovative ideas and the best projects implemented in the field of Future of Cities at Ljubljana Forum 2013.

You are more than welcome to visit the following pages, meet the participants and speakers, read more about the conference highlights and learn about cities' energy efficient and always on line projects and future plans.



Ms Mirela Murtič President of ELSA Liabljana, Slovenia



Mr Jerome C. Glenn CEO of The Millennium Project, USA



Mr Zoran Janković Mayor of Ljubljana, Slovenia



Mr Blaž Golob Chairman of Ljubljana Forum, Slovenia



Mr Miran Gajšek

Head of the Department for Spatial Planning, City of Ljubljana, and Cochairman of Ljubljana Forum, Slovenia



Ms Geci Karuri-Sebina

Executive Manager of South African Cities Network, South Africa



Mr Alexander Prosser

Associate Professor at University of Economics and Business Administration Vienna and Chairman of the Forum eGovernment, Austria



Ms Martina Merslavič

Head of Corporate Communications, City Account Manager and Sustainability Manager, Siemens, Slovenia





knowledge and experience of city governance and defines key areas, visions and strategies of the future development of cities.

The aim of Ljubljana Forum is to promote opportunities for future development of cities and metropolitan areas of the South-East European region. The objective of the Forum is to offer a framework for cooperation, networking and learning among various stakeholders, namely political decision-makers, city administration, investors and banks, businesses, civil society, researchers, academics and students, who create future of cities through researching, developing and implementing the best practices of urban development.

Nearly 40 speakers gave their insights on global and European sustainability challenges, existing energy efficiency industry solutions and new business models and future possibilities for making our cities even smarter and even more energy efficient.

Organizers and Partners of Ljubljana European capital **Forum 2012**

- GFS Institute
- City of Ljubljana
- Government of Slovenia
- European Parliament
- Centre for eGovernance Development
- European Investment Bank
- · The Millennium Project
- · Institute for Electronic Participation
- · Ljubljana Castle
- The Events

Participating cities

- City of Ljubljana
- City of Podgorica
- · City of Pristina
- City of Sarajevo
- · City of Zagreb
- · City of Baku
- · City of Bucharest



EU Energy efficiency for the 2020 goal New Energy Efficiency Directive

Reducing energy consumption and eliminating energy wastage are among the main goals of the EU. There is significant potential for reducing consumption, especially in energy-intensive sectors such as buildings, manufacturing, energy conversion and transport. Member States have made a commitment to reduce consumption of primary energy by 20% by 2020. However, there are still many barriers to the implementation of effective measures. The Commission's assessment for the Energy Efficiency Plan showed that with the policies and measures then in place, the EU was on track to achieve only about half of its 20% energy efficiency target for 2020. To close the gap, the Commission proposed a new Energy Efficiency Directive, which would contribute about 150 Mtoe, and a Transport White Paper2 with measures that would contribute about 50 Mtoe.

Ljubljana Forum Community 2.0

Following the conclusions of Ljubljana Forum 2011 to promote inclusion of the full-range of stakeholders and bottom-up participation in policy-making through a variety of means, people from all over the world had the opportunity to follow the online video-streaming and participate in this year's Ljubljana Forum through Ljubljana Forum Community 2.0.

Ljubljana Forum 2012

Objective 1

to present global challenges
 European sustainable
 development model

Objective 2

 to present energy governance instruments and financial support mechanisms

Objective 3

 to present energy efficiency industry solutions & new business models

Objective 4

 to support projects under EU financial prospectives 2007-2013 & 2013-2020

Objective 5

to connect, bring about new initiatives and move forward

Mayors and Vice mayors at Ljubljana Forum 2012



Mr Zoran Janković, Mayor of Ljubljana, Slovenia



Mr Miomir Mugoša, Mayor of Podgorica, Montenegro



Mr Alija Behmen, Mayor of Sarajevo, Bosnia and Herzegovina

Mr Milan Bandić, Mayor of Zagreb, Croatia



Ms Huseynova Fiduma Mammadali Gizi, Vice-Mayor of Baku, Azerbaijan



Mr Marcel Octavian Nicolaescu, Vice-Mayor of Bucharest, Romania



Mr Donald Plusquellic, Mayor of Akron, Ohio, USA



About the Speakers of Ljubljana Forum 2012



Mr Igor Šalamun, dr., State Secretary, Ministry of Infrastructure and Spatial Planning, Slovenia







Mr Anton Rop, dr., Vice-President, European Investment Bank (EIB), Slovenia

Mr Miran Gajšek, MSc, Head of the Department for Spatial Planning, City of Ljubljana, European Association of Urban Planners, Slovenia



Mr Jan Mühlfeit, Chairman Europe, Microsoft Corporation

Mr Ibon Zugasti,President, The European
Regional Foresight
College, Spain



Mr Roman Jakič, President of Committee on EU Affairs, National Assembly of the Republic of Slovenia, Slovenia

Ms Reyhan Huseynova, prof., Chief Executive Officer, Azerbaijan Future Studies Society, The Millennium Project, Azerbaijan



Mr Blaž Golob, Chairman of Ljubljana Forum, Slovenia

Mr Stane Merše, M.Sc., Head of Energy efficiency Centre,

Jožef Stefan Institute,

Slovenia

Mr Jerome C. Glenn, CEO of The
Millenum Project, USA

Mr David Burrows,
Managing Director –
EMEA Government,
Worldwide Public
Sector, Microsoft
Corporation, United
Kingdom



Ms Romana
Jordan, dr., Member
of the European
Parliament, Slovenia

Ms Helena Petrin,
Deputy Chairwoman
of the Board, BTC City,
Slovenia





Ms Martina Merslavič, Head of Corporate Communications, City Account Manager and Sustainability Manager, Siemens d.o.o. Ljubljana, Slovenia

Mr Rajko Pirnat, prof.dr., Director of Institute for Public Administration, Faculty of Law, University of Ljubljana, Slovenia





Mr Tonda Rolf Oberbacher, Director Business Development Sustainability, SAP, Germany

Mr Ozcan Saritas, PhD, Senior Research Fellow, Manchester Institute of Innovation Research (MIoIR), University of Manchester, United Kingdom





Mr Jože Torkar, MSc, Managing Director, Eltec Petrol d.o.o., Slovenia

Ms Agnès Morel, Economist, Energy Efficiency and Renewable Energy Division, Project Directorate, European Investment Bank (EIB),





Mr Giorgio Tarchi, Sales Manager, Emerging Countries and Balkans, Skylogic, Italy

Ms Ana Seliškar, Head of the IT Department, City of Ljubljana, Slovenia

Luxembourg





Mr Alexander Prosser, prof.dr., Chairman of the Forum eGovernment, Austrian Computer Society, University of Vienna, Austria





Mr Simon Mokorel, CFO at ENVIGENCE. Slovenia

Mr Michaël Van Cutsem, Director of Research and Head of the Foresight Unit, The Destree Institute, Belgium





Mr Saša Bavec, PhDMs Lilijana Madjar, Director, Regional MBA, Director, Knauf Development Agency of Insulation, Slovenia Ljubljana Urban Region, Slovenia



Mr Sithole Mbanga, CEO, South
African Cities Network,
South Africa



Mr Matjaž Čepon, Tehnical Director, Europlakat, Slovenia



Mr Andrej Brglez, Egozero, Slovenia



Mr Mitja Jermol, MSc, Head of the Centre for Knowledge Transfer at Jožef Stefan Institute, Slovenia



Mr Ivo Vajgl, Member of the European Parliament, Slovenia

You can find more about the speakers of Ljubljana Forum 2012 at: www.ljubljanaforum.org

Moderators of Ljubljana Forum 2012

Ms Geci Karuri-Sebina,

Executive Manager: Programmes, South Africa Cities Network, South Africa



Ms Alenka Žumbar Klopčič,

Director and Chief Editor, Energetika.net, Slovenia





Mr Janez Podobnik,

Acting Director General at International Center for Promotion of Enterprises (ICPE), Slovenia



Mr Simon Delakorda.

MSc, Director at INePA, Slovenia



Mr Brane Semolič,

NETLIPSE Network, Slovenia

About the agenda

Thursday, 20th September 2012

Time	Session	Speaker
9:00 - 9:30	Official Opening of Ljubljana Forum	Mr Zoran Janković, Mayor of Ljubljana Mr Igor Šalamun, State Secretary, Ministry of Infrastructure and Spatial Planning Mr Anton Rop, Vice-President, European Investment Bank Mr Jan Mühlfeit, Chairman Europe Microsoft Corporation Mr Roman Jakič, President of Committee on EU Affairs of the National Assembly of the Republic of Slovenia Mr Blaž Golob, Chairman of Ljubljana Forum
9.30 - 10.00	Global Challenges and the Role of Metropolises	Mr Jerome C. Glenn, Director of The Millennium Project
10:00-10:10	Forum debate	

Session I: Sustainable development model & EU Agenda 2020

Multilevel governance for energy efficiency solutions (EU – State – City/Municipality level)

Moderator: Ms Leci Karuri-Sebina, South Africa Lities Network		
10:10 -11:10	European Energy Policy – Opportunities for development of new workplaces	Ms Romana Jordan, Member of European Parliament
	"Europe 2030" Sustainable Development Model & Energy Efficiency	Ms Barbara Haering, PhD Managing Partner Econcept & ETH University Zurich
	Ljubljana Urban Development Plan / Metropolitan Region and Danube Strategy	Mr Miran Gajšek, Head of the Department for Spatial Planning, City of Ljubljana, European Association of Urban Planners
	Connecting Europe through Foresight	Mr Ibon Zugasti, President of The European Regional Foresight College Ms Reyhan Huseynova, Chief Executive Officer of Azerbaijan Future Studies Society, The Millennium Project
11:10- 11:25	Forum debate	
11:25 - 11:40	Coffee break	

Session II: Energy efficiency of cities & regions

Moderator: Ms Alenka Žumbar Klopčič, director and chief editor of Energetika.net

		3
11:40 - 13:00	Participants of the round table are:	Mayor of Ljubljana Mr Zoran Janković, Mayor of Podgorica
		Mr Miomir Mugoša, Mayor of Pristina Mr Isa Mustafa,
		Mayor of Sarajevo Mr Alija Behmen, Mayor of Zagreb
		Mr Milan Bandić, Vice Mayor of Baku Ms Huseynova
		Fiduma Mammadali Gizi, Vice Mayor of Bucharest
		Mr Marcel Octavian Nicolaescu
13.00 - 14.30	Lunch time	

Session III: Corporate solutions for energy efficiency & connected cities

Moderator: Mr An Krumberger, Chairman of the World 2033 Forum

14.30 - 15:15	City of Ljubljana towards 2050 Enabling sustainable development Real impact for better cities	Mr Stane Merše, Head of Energy efficiency Centre, Institute Jozef Stefan Mr David Burrows, Managing Director – EMEA Government Industry, Worldwide Public Sector, Microsoft Corporation
	Experiences made with ELENA facility / associated EIB loan in the case of Chieti, Italy	Mr Antonio Di Nunzio, ALESA - Local Agency for Energy and Environment of the Province of Chieti
	BTC d.d. An example of efficient energy-management and effective use of information and communication solutions	Ms Helena Petrin, Deputy Chairwoman of the Board, BTC City
15.15 - 15:30	Forum debate	

Time	Session	Speaker
15:30- 16:15	Green City Index	Ms Martina Merslavič, Siemens d.o.o.
	SAP Urban Matters Make Urban Life better	Mr Tonda Rolf Oberbacher, Director Business Development Sustainability, SAP EMEA
	Energy and environmental solutions	Mr Jože Torkar, Director-General, Eltec Petrol d.o.o.
	Satellite broadband on the fast lane	Mr Giorgio Tarchi, Sales Manager - Emerging Countries and Balkans, Skylogic
16:15 - 16:30	Forum debate	
16:30 - 17:00	"Thinking out of the box"- Inovation, Interaction, Intelligence	Mr Christof Droste, General Manager, Hella Saturnus Slovenija d.o.o. Mr Simon Mokorel, CEO Envigence
	Knauf Insulation solutions for energy efficient cities	Mr Saša Bavec, Knauf Insulation
17:00 - 17:15	Forum debate	

Friday, 21th September 2012

Session IV: Knowledge for Sustainable Development and Financial Instruments

Moderator: Mr Janez Podobnik, Acting Director General of International Center for Promotion of Enterprise (ICPE)

10:00 - 10:45	Enabling Cross-border Infrastructure Projects	Mr Rajko Pirnat, prof.dr., Director, Institute for Public Administration at the Faculty of Law, University of Ljubljana
	Foresight Enabling Prosperity of Cities	Mr Ozcan Saritas, Manchester Institute of Innovation Research (MIoIR), University of Manchester
	Financial instruments by EIB/EPEC (ELENA)	Ms Agnès Morel, EPEC
10:45 - 11:00	Forum debate	

Session V: Connected city services for Always On-line generation

Moderator: Mr Simon Delakorda, Director of Institute for eParticipation (INePA)

Moderator. Mr Simon belakorda, birector of institute for er articipation (iner A)		
11:00 - 11:45	City Transformation for Digital Future, The case of City of Ljubljana	Ms Ana Seliškar, Head of IT Department, City of Ljubljana eGovernance of Metropolis Mr Alexander Prosser, Chairman of the Forum eGovernment at the Austrian Computer Society, University of Vienna
	Online foresight in Wallonia	Mr Michaël Van Cutsem, Director of Research and Head of the Foresight Unit at The Destree Institute
11:45 - 12:00	Forum debate	

Session VI: Exchange of Future of City projects

Moderator: Mr Brane Semolič, NETLIPSE Network

12:15-13:30	Sustainable transport and energy efficiency: the case of Ljubljana urban region	Ms Lilijana Madjar, director of RDA Ljubljana Urban Region
	African perspective on sustainable development of cities	Mr Sithole Mbanga, CEO South African Cities Network
	BICIKELJ: easy to use and cheap transport in Ljubljana	Mr Matjaž Čepon, technical director Europlakat
	A new way of travel	Mr Andrej Brglez, Egozero
	Smart City & Knowledge City of Ljubljana	Mr Mitja Jermol, Institute Jozef Stefan
13:30 - 13:45	Forum debate	
13:45 - 14:00	The Future of Europe & Challenges of regional co-operation	Mr Ivo Vajgl, Member of European Parliament
	Summary and Conclusions of Ljubljana Forum 2012	Mr Blaž Golob, Chairman of Ljubljana Forum and Mr Miran Gajšek, Head of the Department for Spatial Planning, City of Ljubljana



importance of sustainable development and energy efficiency for future development as also the importance of deploying innovative technologies for improving energy efficiency of cities. To encourage such investments, **Mr Anton Rop,** Vice-President of the European Investment Bank, announced that **many financial sources** will be increased for improving energy efficiency of cities.

The importance of **connecting, learning** from and transferring best practices to be able to do "more with less", was speakers' joint conclusion.

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Therefore, the participants and on-line participants of Ljubljana Forum were invited to actively participate in discussions through Ljubljana Forum Community 2.0 and share their ideas for developing energy efficient cities.

"In this challenging time of economic, social and environmental crisis, we need to find new innovative solutions for the future. And cities are important partners in promoting sustainable economic development and inclusive social development. As such, Ljubljana Forum is structured to respond to grand challenges with innovative model of bringing relevant partners together to present current and create new projects for Future of Cities," was highlighted by

Mr Blaž Golob, Chairman of Ljubljana Forum.



"We have to take care of sustainable development of our cities in an effective manner. And in the time of crisis, cities are the ones who are striving to go forward, develop and invest in the cities and provide new jobs."

Mr Zoran Janković, Mayor of Ljubljana, Slovenia

"Sustainable development and energy efficiency are a key questions and our future goals and cities are becoming testing grounds for sustainable and efficient society."

Mr Igor Šalamun, dr., State Secretary, Ministry of Infrastructure and Spatial Planning, Slovenia

"We have all gathered here to talk about opportunities, to gather our views and experiences and we should all be prepared to learn from best practices and try to transfer them."

Mr Anton Rop, dr., Vice-President, European Investment Bank (EIB), Slovenia

"There is a strategy to build a city of innovation. There is a need to join the three factors: technology, tolerance and education."

Mr Jan Mühlfeit, Chairman Europe, Microsoft Corporation, Czech Republic

"In the time of the financial crisis we must connect, transfer good practices and make more with less to become more energy efficient."

Mr Roman Jakič, President of Committee on EU Affairs, National Assembly of the Republic of Slovenia, Slovenia

Mr Miomir Mugoša, Mayor of Podgorica, Montenegro, Mr Igor Šalamun, dr., State Secretary, Ministry of Infrastructure and Spatial Planning, Slovenia, Mr Zoran Janković, Mayor of Ljubljana, Slovenia, and Mr Anton Rop, dr., Vice-President, European Investment Bank (EIB), Slovenia

Mr Blaž Golob, Chairman of Ljubljana Forum, Ms Biljana Weber, General Manager, Microsoft Slovenia, and Mr Jan Mühlfeit, Chairman Europe, Microsoft Corporation





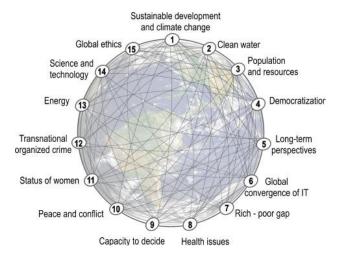
Jerome C. Glenn, CEO of The Millennium Project discussed the issue of how to improve our urban future. He presented global trends and inter-connected 15 Global Challenges, highlighted the most important investment areas to improve our urban future and noted two stories from the Rio+20: nation-state failure and new synergies among business, universities, NGOs, and municipalities or city officials. And the Collective Intelligence System creates synergies to support better decisionmaking and creation of a knowledge society. Further investments should, therefore, be provided to create collective intelligence system at all levels: global, regional, national and urban/city.

The video recording of the presentation is available **here.**



By The Millennium Project www.millennium-project.org/

- Dynamic adaptive buildings with sensors: diagnosis and repair infrastructure
- Ubiquitous computing (Internet of Things), robotics, Nano Sensors (better management and counter terrorism - monitoring molecules in public spaces)
- "Greening" everything possible
- Smart traffic control
- To save urban water: Pure Meat without growing animals and saltwater agriculture



Collective Intelligence

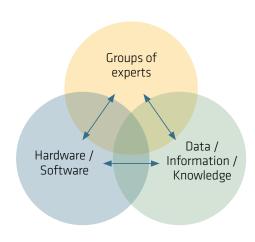
"We need to learn how to manage our cities as a living organism – as connections of brains. How well cities give coherence to these brains to address global challenges will determine the future quality of our future cities. Therefore increasing intelligence should be the goal of education."

Mr Jerome C. Glenn, CEO of <u>The Millenum</u> <u>Project</u>, USA



By The Millennium Project www.millennium-project.org/





Collective Intelligence

The Delphi method is based on the principle that forecasts from a structured group of individuals are more accurate than those from unstructured groups. This has been indicated with the term "collective intelligence". The Millennium Project defines "Collective Intelligence" as an emergent property from synergies among:

- 1 data/info/knowledge/intelligence/ wisdom,
- 2 software/hardware,
- **3** experts and others with insight that continually learns from feedback to produce (nearly) just in time knowledge for better decisions than these elements acting alone.

About the highlights Sustainable Development model & EU Agenda 2020



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Ms Barbara Haering, dr.dr.Hc, Managing Partner, Econcept & ETH University Zürich, Switzerland, Mr Miran Gajšek, M. Sc., B. Arch., Head of the Department for Spatial Planning, City of Ljubljana, and European Association of Urban Planners, Slovenia, Mr Ibon Zugasti, President, The European Regional Foresight College, Spain, Ms Reyhan Huseynova, prof., Chief Executive Officer, Azerbaijan Future Studies Society (AFSS), The Millennium Project, Azerbaijan

Combining the sustainable development model with European energy policy indicates great opportunities for creating high-skill new jobs. Experiences show that we can be successful in fostering energy efficiency as well as in increasing the share of renewable energy sources. However, the time for action is now and cities play a major role in future European development. To contribute to Agenda 2020 goals of smart, inclusive and sustainable growth, Europe needs to strengthen science and innovation, create multilevel governance to promote cooperation among all levels and encourage foresight knowledge and practice.

TO DO LIST

Towards creating the future energy policy to contribute to Agenda 2020 goals of smart, inclusive and sustainable growth:

- stability, which will allow for stable investments
- completion of the single competitive energy market
- investment in the needed infrastructure, investment in growth and jobs
- targeted R&D finance
- clear political decisions and comprehensive strategies
- strong Europe's public sector and clear objectives for the public administration
- »Think global act local« approach by linking international, national and local strategies
- address behaviour changes and consumers' cultures by integrating civil society in planning, decision making and implementation
- more public and private investments in long-term energy research on energy production, energy storage and transportation, energy efficient neighbourhoods, on how people change attitudes and behaviours
- strengthening science and drive integrated research from basic science and technology to innovation and application
- promote urban innovative projects and pilots, networking and cooperation between cities in interaction with The Millennium Project
- strengthening foresight knowledge and practice Europe-wide, building on existing and new platforms and creating the State of the Future Index for South East Europe
- developing unified education programs focused on Future researches.

"European Commision's Energy Roadmap 2050 foresees the creation of 1.5 million high-skill new jobs in 2020, due to the European decarbonisation and energy efficiency plan. To move towards a newer, cleaner and more efficient Europe – a Europe of opportunity for our young people – we must be ready and happy to cooperate in all levels to address today's environmental, economic and demographic challenges."

Ms Romana Jordan, dr., Member of the European Parliament, Slovenia The video recording of the presentation is available here.



"Energy security, climate change and the economic development need comprehensive strategies and clear political decisions. This is a transition process with cultural and behavioural attitudes, therefore, behaviour changes and consumers' cultures have to be addressed as well. Multilevel governance should be used to support cooperation among all levels and to integrate civil society in planning, decision making and implementation."

Ms Barbara Haering, dr.dr.Hc, Managing Partner, Econcept & ETH University Zürich, Switzerland

The video recording of the presentation is available **here.**



Zurich's ambitious transition to a 2000-watt society by 2050 shows how a city can develop sustainable and energy efficient, without lowering the current living standard of its citizens.

"Urban development is crucial for future of Europe. Therefore, the overall objective for cohesion policy 2014-2020 should be Urban development platform, Urban innovative actions and Integrated territorial Initiatives working together on the very basis of territorial and thematic concentration."

Mr Miran Gajšek, MSc, Head of the Department for Spatial Planning, <u>City of Ljubljana</u>, <u>European Association of Urban</u> Planners, Slovenia

The video recording of the presentation is available here.

"Europe has high level foresight capabilities. However, we still need to work more in reinforcing these capabilities as also to share our work and abilities among all levels, creating multilevel governance to be ready for uncertain future. European funds must promote cooperation, applied research and foresight knowledge and practice, which will result in innovative projects, pilots and platforms creation and promote development towards knowledge society and knowledge/intelligent cities."

Mr Ibon Zugasti, President, The European Regional Foresight College, Spain

The video recording of the presentation is available here.

"Azerbaijan Future Studies Society promotes and supports opportunities for Azerbaijani students and has, therefore, created the first "Azerbaijan Foresight" on-line university course on Future Studies and Future Research Methodology, which is held at the Azerbaijan State Economic University."

<u>Ms Reyhan Huseynova</u>, prof., Chief Executive Officer, <u>Azerbaijan Future Studies Society</u> (AFSS), The Millennium Project, Azerbaijan

The video recording of the presentation is available $\underline{\text{here.}}$



Mayor's Round Table Energy efficiency of cities & regions



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Mr Jerome C. Glenn, Director of the Millennium Project, Mr Marcel Octavian Nicolaescu, the Vice-Mayor of Bucharest, Mr Donald Plusquellic, Mayor of Akrona, Ohio, USA, Mr Miran Bandić, Mayor of Zagreb, Croatia, Ms Alenka Žumbar Klopčič, director and editor of Energetika.net, Slovenia (round table moderator), Mr Zoran Janković, Mayor of Ljubljana, Slovenia, Ms Fiduma Mammadali Gizi, Vice-Mayor of Baku, Mr Miomir Mugoša, Mayor of Podgorica, Montenegro, Mr Alija Behmen, Mayor of Sarajevo, Bosnia and Herzegovina, Mr Isa Mustafa, Mayor of Prishtina, Kosovo, and Mr Blaž Golob, Chairman of Ljubljana Forum

We were honoured by a visit of 5 Mayors and 2 Vice-Mayors of European capital cities, who exchanged good practice cases of "greening their cities" and presented cities' future plans for improving energy efficiency and increasing quality of life.

Participants:

Mr Zoran Janković, Mayor of Ljubljana, Slovenia Mr Miomir Mugoša, Mayor of Podgorica, Montenegro Mr Isa Mustafa, Mayor of Pristina, Kosovo Mr Alija Behmen, Mayor of Sarajevo, Bosnia and Herzegovina

Mr Milan Bandić, Mayor of Zagreb, Croatia **Ms Huseynova Fiduma Mammadali Gizi,** Vice-Mayor of Baku, Azerbaijan

Mr Marcel Octavian Nicolaescu, Vice-Mayor of Bucharest, Romania

Participants of the Round Table presented their city's initiatives in "becoming greener". Throughout the past few years, cities have made significant improvements regarding energy efficiency. Many smart practices in increasing sustainability and energy efficiency in the cities were presented, such as: improving public transportation, increasing surfaces for cyclists and pedestrians, increasing green surfaces, improving public lightening, implementing energy efficient solutions in building and construction. Cities put great efforts in long-term planning for reducing the production of electricity from fossil fuels and increasing the use of renewable resources, such as wind, solar, biomass and hydropower. However, participants of the round table highlighted the lack of sufficient financial resources for successful implementation of their plans and strategies for improving cities' energy efficiency and sustainability.

"We as mayors are responsible that our grandchildren get the nature in the same condition than the one we received from our parents. I am proud to say that there is no city in Europe where you can go from the office to the natural environment with grass and trees within 2 minutes as in Ljubljana."

Mr Zoran Janković, Mayor of Ljubljana, Slovenia



"We dedicated our attention to the protection of the environment. In the previous year, we have saved one fourth of energy with just using the energy efficient light bulbs. And in ten years we want to live environment-friendly and use clean and green energy."

Mr Miomir Mugoša, Mayor of Podgorica, Montenegro



"It is important to establish a clear vision for energy efficient city first. In the future, we would like to reduce the use of fossil fuels and offer even more green surfaces to our citizens."

Mr Isa Mustafa, Mayor of Pristina, Kosovo

"Sustainable development of cities should be driven by an economic policy which allows adequate financing of initial investments, investments that arise from our common knowledge, technological development, and as such, they start the cycle of sustainable development."

Mr Alija Behmen, Mayor of Sarajevo, Bosnia and Herzegovina

"The city has increased the standards of sustainability in the last 20 years. An important part to perform energetically efficient projects is also education of city administration and increase of environmental awareness."

Mr Milan Bandić, Mayor of Zagreb, Croatia

"We have offered a lot to our youngest generation and I am happy to say that there is great difference in their attitude towards environment. Currently, Baku is going through the restoration process towards creating the Baku White City." **Ms Huseynova Fiduma Mammadali Gizi,** Vice-Mayor of <u>Baku</u>, Azerbaijan

"Bucharest is a green city with lots of green activities in the city. We strongly encourage citizens to use public transportation when travelling round and outside the city."

Mr Marcel Octavian Nicolaescu, Vice-Mayor of Bucharest, Romania

Corporate solutions for energy efficiency & connected cities



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Mr David Burrows, Managing Director – EMEA Government, Worldwide Public Sector, Microsoft Corporation, United Kingdom, Mr An Krumberger, Chairman, World 2033 Forum, Slovenia, Ms Helena Petrin, Member of the Board – General Secretary, BTC City, Slovenia, and Mr Stane Merše, M.Sc., Head of Energy efficiency Centre, Jožef Stefan Institute, Slovenia

Future quality of living in urban areas is directly linked with the successful transition towards low carbon society. Cooperation and exchange of experience between cities is of great importance. However, to be successful in developing sustainable urban infrastructure each city needs to form a unique and adaptive development strategy, supported by efficient and intelligent technology. Presented industry solutions and good practice cases offer opportunities for creating customized solutions to help city leaders to support the needs of citizens, preserve the environment and develop smarter economies.

TO DO LIST

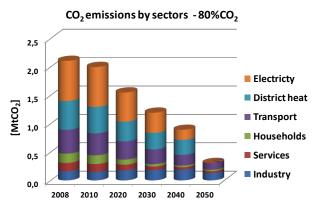
Towards creating energy efficient & connected cities:

- promote good governance at the metropolitan level
- adopt a holistic approach to efficient energy and environmental management
- adopt proper planning tools & models and create unique and adaptive development strategy, based on excellent knowledge of alternative possibilities of development and awareness about new opportunities
- evaluate and benchmark
- use the benefits of efficient and intelligent technological solutions and invest in the right technologies
- adopt good governance to harmonise interests between the state, cities and citizens and promote environmental awareness
- encourage community participation
- manage the 'green' and 'brown' agendas simultaneously
- create partnerships in reducing environmental impact
- think "Out of the box" to create innovation, interaction and intelligence.

"Sustainable urban infrastructure is today's business opportunity and great challenge of future development. The extent of foreseen investment in sustainable urban infrastructure is very extensive; however, it is necessary and justified. The challenge is how the state/city can promote greater adoption of new and efficient technologies by consumers."

Mr Stane Merše, M.Sc., Head of Energy Efficiency Centre, Jožef Stefan Institute, Slovenia

The video recording of the presentation is available here.





Sustainable Excellence scenario of future development of City of Ljubljana.

Source: City of Ljubljana towards 2050 Enabling sustainable development, Mr Stane Merše, M.Sc., Head of Energy Efficiency Centre, Jožef Stefan Institute, Slovenia, presentation at Ljubljana Forum 2012, 20th – 21st September 2012, Ljubljana, Slovenia

"Cities are a living place, a living mechanism. Future goal is to construct a smart city, which can be delivered by using a holistic platform approach that creates real impact in the lives of the citizens."

<u>Mr David Burrows</u>, Managing Director – EMEA Government, <u>Worldwide Public Sector</u>, <u>Microsoft</u> Corporation, United Kingdom

The video recording of the presentation is available here.





City Responsibilities & Technology Solutions - helping City Leaders make a Real Impact. Source: Real impact for better cities, Mr David Burrows, Managing Director - EMEA Government, Worldwide Public Sector, Microsoft Corporation, United Kingdom, presentation at Ljubljana Forum 2012, 20th - 21st September 2012, Ljubljana, Slovenia

"Our cities are at the forefront of technology transformation, which creates new opportunities alongside new business models to ensure sustainable growth. <u>SAP Urban Matters initiative</u> is designed to support cities to become a best run city in terms of good government, engaged communities, user empowerment, innovative services and urban resilience."

Mr Tonda Rolf Oberbacher, Director Business Development LoB Sustainability EMEA, SAP, Germany

The video recording of the presentation is available here.





Mr An Krumberger, Chairman, World 2033 Forum, Slovenia, Ms Martina Merslavič, Head of Corporate Communications, City Account Manager and Sustainability Manager, Siemens d.o.o. Ljubljana, Slovenia, Mr Tonda Rolf Oberbacher, Director Business Development LoB Sustainability EMEA, SAP, Germany, Mr Jože Torkar, M.Sc, Managing Director, Eltec Petrol d.o.o., Slovenia, and Mr Giorgio Tarchi, Sales Manager, Emerging Countries and Balkans, Skylogic, Italy

"BTC City has invested significantly in green energy in the past 2 years, thus reducing its electricity consumption by 10% through efficient energy management. We are also raising public awareness of green values and behaviour through our <u>Mission – Green project</u> to promote green products and services and encourage green consumption in the BTC City."

Ms Helena Petrin, Member of the Board – General Secretary, BTC City, Slovenia

The video recording of the presentation is available **here.**



Source: <u>BTC d.d. An example of eficient energy-management and effective use of information and communication solutions</u>, Ms Helena Petrin, Member of the Board – General Secretary, BTC City, Slovenia, presentation at Ljubljana Forum 2012, 20th – 21st September 2012, Ljubljana, Slovenia



"We need to create partnerships in reducing the use of energy and water and in reducing environmental impact because doing it alone will bring you nowhere. We have the technology and business models to provide comprehensive energy and environmental solutions for energy management in buildings, water distribution system, district heating and effective lightening to lower the operating and maintenance costs."

Mr Jože Torkar, M.Sc, Managing Director, Eltec Petrol d.o.o., Slovenia

The video recording of the presentation is available here.





Mr Miran Gajšek, M. Sc., B. Arch., Head of the Department for Spatial Planning, City of Ljubljana, European Association of Urban Planners, Slovenia, Mr An Krumberger, Chairman, World 2033 Forum, Slovenia, Mr Saša Bavec, PhD, MBA, Director, Knauf Insulation, Slovenia, Mr Christof Droste, General Manager, Hella Saturnus Slovenija d.o.o., Slovenia, Mr Simon Mokorel, CFO at ENVIGENCE, Slovenia, and Mr Blaž Golob, Chairman of Ljubljana Forum, Slovenia





Green City Index: <u>Summary of the research series.</u>

Available at: www.siemens.com/ entry/cc/en/greencityindex.htm

"Cities are the growth engines of the future, offering their populations greater opportunities for education, employment and prosperity. Yet, the negative effects of city growth produce many urban challenges. In order to help city stakeholders to better understand their specific challenges, to provide insights into effective policies and best practices, thus supporting decision making, Siemens has developed the <u>Green City Index</u>."

<u>Ms Martina Merslavič</u>, Head of Corporate Communications, City Account Manager and Sustainability Manager, Siemens d.o.o. Ljubljana, Slovenia

The video recording of the presentation is available here.

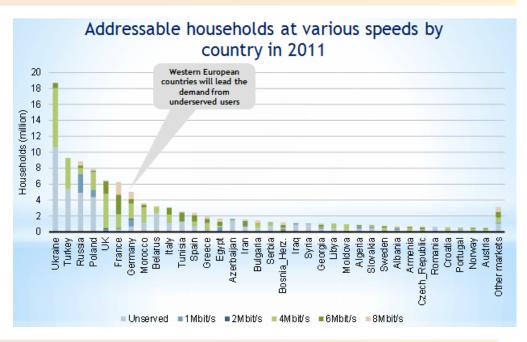
"Despite the progress already made, we still have not reached the Agenda 2020 ambitious goals in many areas, although the EU study shows that 10% more broadband-penetration generated +1.5% of economic growth. Therefore, <u>Tooway</u> has developed faster, efficient, simple and available solutions to contribute to EU broadband and economic goals."

Mr Giorgio Tarchi, Sales Manager, Emerging Countries and Balkans, Skylogic, Italy

The video recording of the presentation is available here.



Digital gap remains in 2012 Source: Analysis Mason, 2011, Satellite broadband on the fast lane, Mr Giorgio Tarchi, Sales Manager, Emerging Countries and Balkans, Skylogic, Italy, presentation at Ljubljana Forum 2012, 20th – 21st September 2012, Ljubljana, Slovenia





"Innovative products, processes and services will be the secret of our future. Interactive communication between people and systems will make it possible to reveal that secret and combination of human and artificial intelligence will make it work. We need to start thinking out of the box!"

Mr Christof Droste, General Manager, Hella Saturnus Slovenija d.o.o.,

Slovenia

The video recording of the presentation is available here.

Global Vision 2011-2012

Source: Knauf

energy efficient

<u>cities,</u> Mr Saša Bavec. PhD.

MBA, Director,

Knauf Insulation, Slovenia

Insulation solutions for



"40% of all energy in Europe is used for heating and cooling of buildings and half of it could be saved by simple measures such as proper insulation. That equals to 290 billion euros savings per year or 460 million tons of carbon dioxide not being emitted! Time to save energy is now and Knaufinsulation has developed a comprehensive range of solutions for buildings and industrial applications."

Mr Saša Bavec, PhD, MBA, Director, <u>Knauf Insulation</u>, Slovenia The video recording of the presentation is available <u>here.</u>



Legal challenges of cross-border projects

- diplomatic agreement and international negotiation
- different legal environment and administrative cultures and practices in different countries
- challenge of compatibility with the EU law (infrastructure fees, state aid limitations)
- challenge of project implementation at the national level: different and overlapping competences of central and local administration, lack of coordination of operative administrative procedures, lack of effective legal regulation on spatial planning, environmental projection, construction and expropriation.

TO DO LIST

- strengthen cooperation among all levels and among relevant actors and include all relevant actors into the early stages of project planning
- address transnational issues and different legal environments and administrative cultures and practices as also the EU law before designing a project
- adapt legal regulation and adopt special laws for specific cross-border projects
- increase country's administrative capacity to better serve the project.

Challenges for foresight to deal with grand challenges

- conceptual, methodological and operational challenges
- understanding the complex and systemic nature of grand challenges
- dealing with more complex and uncertain issues
- combining quantitative and qualitative information and finding balance between reliability and external validity
- justifying long-term commitment, consensus and concerted action around a common vision
- creating grand responses to grand challenges
- developing mechanisms for integrated innovation and collective action.

TO DO LIST

- improving foresight practice by understanding challenges of foresight to deal with the grand challenges of cities/humanity
- use a wide variety of foresight methods for more tailored design of foresight to address a variety of issues
- develop mechanisms for integrated innovation and collective action
- build and strengthen the community of collaborative, interdisciplinary and global innovators
- embedding foresight culture by investing all spheres of the society in the foresight process.



"Cross-border infrastructure projects follow longitudinal objectives with considerable environmental impacts, therefore are complex, expensive, and unevenly distribute benefits and burdens among partners. The key to smooth running of the projects is the **acknowledgement of transnational law issues** and **including municipalities in the early stages of project planning.**"

Mr Rajko Pirnat, prof.dr., Director of <u>Institute for Public Administration</u>, Faculty of Law, University of Ljubljana, Slovenia The video recording of the presentation is available <u>here.</u>



"Currently, there are many investment projects running that are aimed at energy efficiency through ELENA: for isolating buildings, fitting public and traffic lightning with energy efficient bulbs, supporting energy efficient urban transport and even installing electronic chips into trees to monitor their health. There are also major funds prepared for future energy efficiency projects. One such is the European Energy Efficiency Fund (EEE-F), where 70% of the 265 million euros shall be targeted towards energy efficiency in buildings."

<u>Ms Agnès Morel</u>, Economist, Energy Efficiency and Renewable Energy Division, Project Directorate, European Investment Bank (EIB), Luxembourg

The video recording of the presentation is available here.

The European Investment Bank (EIB) financing opportunities

<u>Inside the European Union the EIB supports the EU's policy objectives in the following areas:</u>

- small and medium-sized enterprises: stimulating investment by small businesses
- · cohesion and convergence: addressing economic and social imbalances in disadvantaged regions
- the fight against climate change: mitigating and adapting to the effects of global warming
- environmental protection and sustainable communities: investing in a cleaner natural and urban environment
- sustainable, competitive and secure energy: producing alternative energy and reducing dependence on imports
- the knowledge economy: promoting an economy that stimulates knowledge and creativity through investment in information and communication technologies, and human and social capital
- trans-European networks: constructing cross-border networks in transport, energy and communications.

• ELENA - European Local Energy Assistance

EC-EIB cooperation to support local and regional authorities to reach 20-20-20 targets Application to Energy Efficiency, local renewable, clean transport Envisaged budget 2012: 22 mio euros

• EEE-F - New European Energy Efficiency Fund

Beneficiaries: Local & regional Public authorities, but PPPs are possible Envisaged budget 2012: 265 mio euros

• JASPERS - Joint Assistance to Support Projects in European Regions

To prepare projects supported by EU Structural and Cohesion Funds

• JESSICA - Joint European Support for Sustainable Investment in City Areas

For investment in sustainable urban development

• RSFF - Risk-Sharing Finance Facility

For higher-risk R&D projects

• EPEC - European PPP Expertise Centre

To strengthen the organisational capacity of the public sector to engage in Public Private Partnerships (PPP) transactions

Shaping Sustainable cities



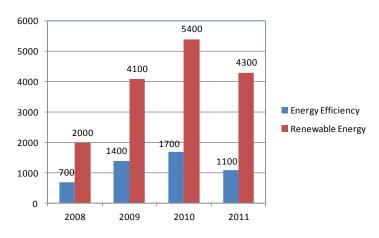
Greening cities and making them sustainable are at the heart of the EIB's investments in urban areas. Over the last five years (2006-2010), the EIB has provided finance totalling almost EUR 55bn as well as technical assistance to support these goals in several hundred cities.



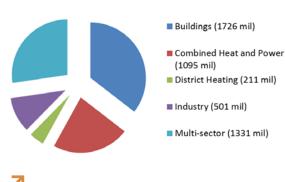
Learn more about the city projects and about current financing opportunities at www.eib.org/projects/topics/index.htm.

Supporting sustainable, competitive and secure energy

EIB lending in Energy in the EU 2008-2010



EIB Lending by Sector in 2008 -2011



Source: EIB financing for energy efficiency, Mr Anton Rop, dr., Vice-President, European Investment Bank (EIB), Slovenia, presentation at Ljubljana Forum 2012, 20th – 21st September 2012, Ljubljana, Slovenia



Mr Anton Rop, dr., Vice-President, European Investment Bank (EIB), Slovenia

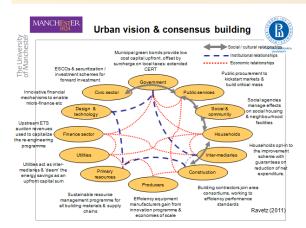


Foresight

"Complex grand challenges for cities require multidisciplinary systemic action and long term commitment & consensus around a common vision for collective structural and behavioural transformation towards post carbon society. By using foresight in addressing grand city challenges it is possible to: identify future challenges for cities, align actors around these challenges, discuss expected and unexpected consequences of grand challenges and propose disruptive transformations in response to them."

Mr Ozcan Saritas, PhD, Senior Research Fellow, <u>Manchester Institute of Innovation Research (MIoIR)</u>, University of Manchester, United Kingdom

The video recording of the presentation is available here.





Source: Foresight Enabling Prosperity of Cities, Mr Ozcan Saritas, PhD, Senior Research Fellow, Manchester Institute of Innovation Research (MIoIR), University of Manchester, United Kingdom, presentation at Ljubljana Forum 2012, 20th – 21st September 2012, Ljubljana, Slovenia

"To identify and address regional challenges, there has been an on-going and continuous foresight process in Wallonia since 1985, called <u>"Wallonia to the Future"</u> and recent study elaborates on five meta-scenarios for the Walloon territory by



AN INITIAL ASSESSMENT
OF TERRITORIAL FORWARD
PLANNING/FORESIGHT PROJECTS IN THE
FUROPFAN LINION

<u>2040</u>. The experiences of embedding **foresight culture** in Wallonia are impressive. However, this is a long, demanding and multidimensional process. One of the **strengths is to be "always on line"** and to **involve many actors in regional development.**"

Mr Michaël Van Cutsem, Director of Research and Head of the Foresight Unit, <u>Destree Institute</u>, Belgium The video recording of the presentation is available <u>here</u>.



Ms Ute Hélène von Reibnitz, Scenarios + Visions, France, stressed the importance of using foresight as a tool in future development of cities at Ljubljana Forum 2012: "Foresight is a participatory tool, used for bringing different actors together to discuss new and »out of the box« ideas, to develop scenarios and alternatives of the future, thus enabling them to shape the future of the city."

The whole interview is available here.

Azerbaijan State of the Future Index (The AZ-SOFI) is an assessment of the 10-year outlook of the Future (2011-2020), based on 20 years of historical data and forecasts of 20 variables and 24 potential developments.



"It is of major importance to ensure continuous financing of researches on future and develop unified educational programs focused on such researches."

Ms Reyhan Huseynova, prof., Chief Executive Officer, Azerbaijan Future Studies Society (AFSS), The Millennium Project, Azerbaijan

The video recording of the presentation is available here.

"European funds must promote foresight knowledge and practice."

Mr Ibon Zugasti, President, The European Regional Foresight College, Spain

The video recording of the presentation is available **here.**

Connected city services for Always On-line generation





Ms Ana Seliškar, Head of the IT Department, City of Ljubljana, Slovenia, Mr Michaël Van Cutsem, Director of Research and Head of the Foresight Unit, The Destree Institute, Belgium, Mr Simon Delakorda, MSc, Director at INePA, Slovenia, and Mr Alexander Prosser, prof. dr., Institute of Production Management, University of Economics and Business Administration, Vienna, Austria

TO DO LIST

Towards user-friendly connected city services:

- radical transformation of local government is the key to addressing today's' urban challenges
- take advantage of innovative digital technologies to create user-friendly connected city services
- establishment of broad, easily accessible and cheap infrastructure in order to achieve rapid development of advanced digital services
- create better public services, which enable more direct participation in decisions
- create an environment that encourages innovation
- increase the use of Enterprise Resource Planning System in public sector
- integrate Enterprise Resource Planning System in standard public sector education
- continuous education of public servants.

Cities have to address grand challenges in innovative digital manner, by becoming new innovative centres able to provide high quality of life and user-friendly connected services to its citizens and enabling economy to develop in the context of sustainability. Therefore, cities should encourage research and development towards being "always on-line". Continuous education of public servants is of great importance during this transformation process.





Mr Ozcan Saritas, PhD, Senior Research Fellow, Manchester Institute of Innovation Research (MIoIR), University of Manchester, United Kingdom, Mr Blaž Golob, Chairman of Ljubljana Forum, Slovenia, and Mr Jerome C. Glenn, Director of The Millenum Project, IISA

"With limited natural resources, the **future city development is digital** and cities have to take charge of becoming the new type of **innovation centres.** The City of Ljubljana has implemented a unique public private partnership in order to build a citywide high speed wireless platform to be used by citizens and visitors, enterprises and public authorities, which sets Ljubljana firmly on the road to becoming a digital city, with the goal to enable sustainable economic growth and achieve an even better quality of life for all its residents."

Ms Ana Seliškar, Head of the IT Department, City of Ljubljana, Slovenia The video recording of the presentation is available here.



21st century – digital cities

Source: City Transformation for Digital Future, The case of City of Ljubljana, Ms Ana Seliškar, Head of the IT Department, City of Ljubljana, Slovenia, presentation at Ljubljana Forum 2012, 20th – 21st September 2012, Ljubljana, Slovenia



"The notion of being **always on-line in the city** with all the on-line services, which are being offered to the general public, need one integrated system to support the overall process. **Enterprise Resource Planning (ERP)** systems are increasingly being used in public sector to gain higher quality. The value and effect of such system is ready availability of inter-related data covering a process or new process at any time as also positive effects on compliance and auditability. However, to achieve efficient operation of the ERP system in the public sector, customized education for public servants is needed."

<u>Mr Alexander Prosser</u>, prof.dr., <u>Institute of Production Management</u>, University of Economics and Business Administration, Vienna, Austria

The video recording of the presentation is available <u>here.</u>





Mr Simon Delakorda, MSc, Director at INePA, Slovenia, and **Mr Alexander Prosser**, prof.dr., Institute of Production Management, University of Economics and Business Administration, Vienna, Austria

Exchange of Future of City projects



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Ms Lilijana Madjar, Director, Regional Development Agency of Ljubljana Urban Region, Slovenia, Mr Sithole Mbanga, CEO, South African Cities Network, South Africa, Mr Matjaž Čepon, Tehnical Director, Europlakat, Slovenia, Mr Andrej Brglez, Project Leader, Egozero, Slovenia, Mr Mitja Jermol, MSc, Head of the Centre for Knowledge Transfer, Jožef Stefan Institute, Slovenia, and Mr Brane Semolič, NETLIPSE Network, Slovenia

Exchange of knowledge and experience and create symbiotic relationships among cities all around the world to address grand challenges is of great importance for building new knowledge and new opportunities for future projects. The goal is to develop towards building intelligent cities of the future, which will be able to adapt its services to personalized needs of its residents.

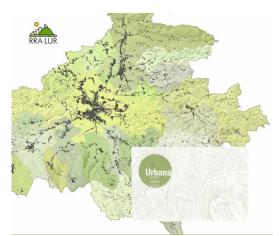
TO DO LIST

Towards more sustainable and competitive solutions for creating intelligent Future Cities

- Conduct research on specific issues and challenges to gain understanding of how to address them properly;
- Create strategies and set priorities for the future city/ region development;
- Provide local government indicators that allow better governance & interpretation at varied scales;
- Transmit information and knowledge;
- Promote and transfer good practice cases and projects;
- Connect, network, collaborate and promote symbiotic behaviour to create new knowledge and new projects;
- Promote pragmatic, bottom-up and step-by-step approach towards creating smart and intelligent cities of the future.

"Effective transport policy is essential for Ljubljana, therefore, the task of the Regional Development Agency in Ljubljana Urban Region (RDA LUR) is to connect 26 municipalities and half a million inhabitants of the region into a harmonious composite to move towards sustainable mobility based on public transport. Due to this ambitious goal, the project Guidelines for the regulation of regional public transport in the Ljubljana Urban Region has been launched."

Ms Lilijana Madjar, Director, Regional Development Agency of Ljubljana Urban Region, Slovenia The video recording of the presentation is available here.





Ljubljana Urban Region Source: Sustainable transport and energy eciency: the case of Ljubljana urban region, Ms Lilijana Madjar, Director, Regional Development Agency of Ljubljana Urban Region, Slovenia, presentation at Ljubljana Forum 2012, 20. – 21. September 2012, Ljubljana, Slovenia

"How can we transmit the information we have to the next generation? The answer lies in the **sustainable development projects,** which can bring necessary changes. However, sustainability is not an isolated issue, therefore governments must find balance in efforts of creating productive, inclusive, and sustainable and well governed city through creating a City Development Strategy. <u>South Africa's City support programme</u> advocates for better governed more climate resilient cities and more equitable, compact cities."

Mr Sithole Mbanga, CEO, <u>South African Cities Network</u>, South Africa The video recording of the presentation is available <u>here.</u>





Source: African perspective on sustainable development of cities, Mr Sithole Mbanga, CEO, South African Cities Network, South Africa, presentation at Ljubljana Forum 2012, 20. – 21. September 2012, Ljubljana, Slovenia

"The negative impacts of tourism, which are mostly produced in transport, have to be addressed properly by offering environmentally conscious tourists a possibility to travel environment friendly. The Egozero project offers new dimensions of electric car use by connecting this **innovative travel technology** with responsible and sustainable tourism and user friendly searching and booking system, thus creating a unique travel experience."

Mr Andrej Brglez, Project Leader, Egozero, Slovenia

The video recording of the presentation is available here.

"The project <u>BICIKE(LJ)</u> is a self-service and very user-friendly **sustainable mobility system** that has proven to be a win-win public-private partnership between the City of Ljubljana and Europlakat with an outstanding number of users and rents after a year of operating and the number of subscribers is still growing."

Mr Matjaž Čepon, Tehnical Director, Europlakat, Slovenia

The video recording of the presentation is available here.



in Ljubljana, Mr Matjaž Čepon, Tehnical Director, Europlakat, Sloveni, presentation at Ljubljana Forum 2012, 20. – 21. September 2012, Ljubljana, Slovenia



CURRENT NUMBERS:

31 stations, 300 bicycles, 600 locks

37.365 BicikeLJ users (registrations)

880.358 of all rents

1.808 rents in average per day

2,56 hours in average every bike rented per day

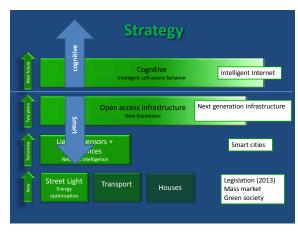
23 min. average duration per rent98% of all rents are free of charge6,7 average number per bike per day

(Paris 5-6, Lyon 8)

"The urban future lies in development toward cities, which will be able to adapt its services to personalized individual or group needs. There are many technologies already available to create such new types of environment of "cognitive and symbiotic cities", which behave in intelligent and self-aware manner. However, to progress towards this future pragmatic, bottom-up and step-by-step approach with networking, sharing and symbiotic behaviour is needed."

<u>Mr Mitja Jermol</u>, MSc, Head of the <u>Centre for Knowledge Transfer</u> at Jožef Stefan Institute, Slovenia The video recording of the presentation is available <u>here.</u>

Source: Smart
City & Knowledge
City of Ljubljana,
Mr Mitja Jermol,
MSc, Head of
the Centre for
Knowledge Transfer
at Jožef Stefan
Institute, Slovenia
presentation at
Ljubljana Forum
2012, 20. – 21.
September 2012,
Ljubljana, Slovenia



Closure on the Conference



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Mr Miran Gajšek, M. Sc., B. Arch., Head of the Department for Spatial Planning, City of Ljubljana, and European Association of Urban Planners, Slovenia, **Mr Ivo Vajgl,** Member of the European Parliament, Slovenia, and **Mr Blaž Golob,** Chirman of Ljubljana Forum.

Participants' views on the Ljubljana Forum 2012 conference are available **here.** This year the <u>Ljubljana Forum 2012</u> conference, supported with the power of political will, has proven to be **one of the most creative, vision building events,** where multi-stakeholders, municipalities, researchers, companies and investors were able to interact, exchange experience, learn and create synergies with the aim **to identify and respond to the challenges that cities are facing in the field of energy efficiency and being always on-line.**

In order to develop sustainably and address today's and future challenges of cities we need to create **global collective intelligence for creating synergies** that will enable us to **think and act in an innovative future-oriented manner** to provide new business solutions, new management models and adaptive development strategies, and to design and transfer good practices and projects that create new jobs. "Thus, Ljubljana Forum Future of Cities concept, supported strongly by political will, indicates an innovative and efficient model of overcoming the pessimism in Slovenia and in Europe, due to the financial crisis," highlighted **Mr Blaž Golob**, Chairman of Ljubljana Forum.

Mr Ivo Vajgl, Member of the European Parliament, stressed the importance of the issues on city policy from the urban planning to IT solutions for supporting the governance of cities in the debates of the European Parliament. Therefore, the **follow up on the Ljubljana Forum 2012** will be **presented in the European Parliament.** He highlighted: "Cities gain a lot through such integrating and cooperating event at an international level. As such, Ljubljana Forum means a substantial contribution to shape a new understanding of a self-confident and proactive European Union."

Mr Miran Gajšek, M. Sc., B. Arch., Head of the Department for Spatial Planning, City of Ljubljana, and European Association of Urban Planners, highlighted the significant role of cities in **allocating new jobs for young generation as one of the most important message of Ljubljana Forum 2012.** "In order to achieve this goal, we need to do more in the area of social, economic and territorial cohesion, by following the new urban dimension of the EU Cohesion Policy 2014-2020. We need to include foresight in strategic planning, as also manage and monitor the implementation process towards achieving goals, objectives and targets to improve the living conditions for all," stressed **Mr Gajšek.**

Initiation of the Ljubljana Forum Living Lab

Intelligent cities that function as living organism and are always connected, always on-line, are the future.

To move forward towards creating such cities, we need to combine capacities of new technological intelligence and various segments of human intelligence. In order to achieve this, we need to strengthen participation of various stakeholders in the decision-making process.

Supported by all the knowledge, provided by distinguished speakers at Ljubljana Forum 2012, **Ljubljana Forum Living Lab was initiated.** This multistakeholder platform for research and innovation is aimed at connecting and building synergies among relevant stakeholders in the entire development process of new projects, new solutions and business applications for creating new jobs.



7

Multistakeholders approach towards creation of Ljubljana Forum Living Lab. Research & municipality & business & civil society.

You can be awarded for participating in Ljubljana Forum Living Lab!

Ljubljana Forum Award

The aim of Ljubljana Forum Award is to identify, promote and reward innovative good practices in the field of developing future of cities. The first Ljubljana Forum Award will be awarded at Ljubljana Forum 2013 to an already implemented project from specific urban location or area that brings an added value for the South-East European region, an actual progress in the social, economic, environmental and territorial meaning and promotes European identity.

Ljubljana Forum Creativity Award

Interested individuals and groups are invited to share project ideas on future of cities for our "Creativity Award". We look forward for new and fresh ideas, which have a potential to further develop into long-term projects.

To participate please visit www.liublianaforum.org



Mayors

Mr Zoran Janković, Mayor of Ljubljana, Slovenia Mr Miomir Mugoša, PhD, Mayor of Podgorica, Montenegro

Mr Isa Mustafa, PhD, Mayor of Pristina, Kosovo Mr Alija Behmen, PhD, Mayor of Sarajevo, Bosnia and Herzegovina

Mr Milan Bandić, Mayor of Zagreb, Croatia

Ms Huseynova Fiduma Mammadali Gizi, Vice-Mayor of Baku, Azerbaijan

Mr Marcel Octavian Nicolaescu, Vice-Mayor of Bucharest, Romania

Mr Donald Plusquellic, Mayor of Akron, Ohio, USA

Ambassadors

H.E. Ms Anunciada Fernández de Córdova, Ambassador, Embassy of Spain in Slovenia

H.E. Mr Karsten Vagn Nielsen, Ambassador, Embassy of Denmark in Slovenia

Mr Zhou Qian, Counsellor, Embassy of People's Republic of China in Slovenia

Mr Liu Zhenyu, Attache, Embassy of People's Republic of China in Slovenia

H.E. Mr Robert Reich, Ambassador, Embassy of Switzerland in Slovenia

H.E. Mr Cosmin Boiangiu, Ambassador, Embassy of Romania in Slovenia

Ms Carmen Florea, Deputy Head of Mission, Embassy of Romania in Slovenia

H.E. Mr Clemens Koja, Ambassador, Embassy of Austria in Slovenia

H.E. Mr Istvan Szent-Ivanyi, Ambassador, Embassy of Hungary in Slovenia

H.E. Mr Andrew Page, Ambassador, Embassy of the United Kingdom of Great Britain and Northern Ireland in Slovenia

Speakers and moderators

Mr Igor Šalamun, dr., State Secretary, Ministry of Infrastructure and Spatial Planning, Slovenia Mr Anton Rop, dr., Vice-President, European Investment Bank (EIB), Slovenia

Mr Jan Mühlfeit, Chairman Europe, Microsoft Corporation

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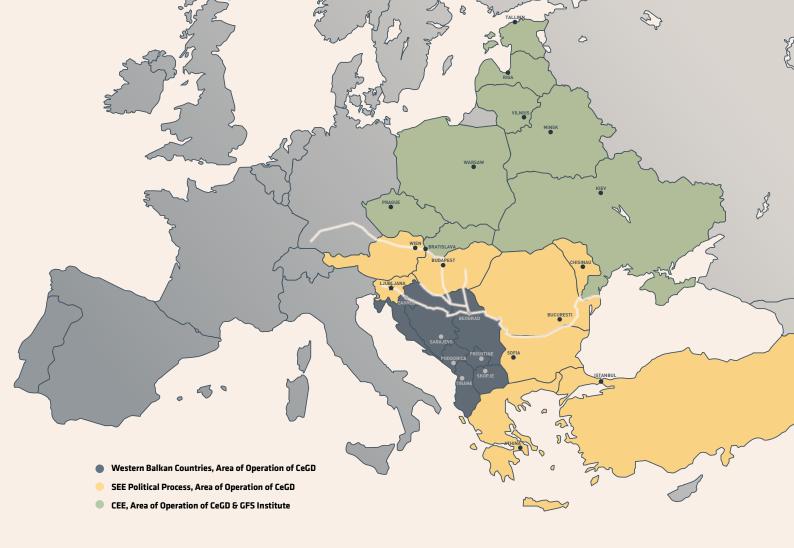
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About GoForeSight Institute www.goforesight.eu

Mission

GoForeSight

Vision

Supporting stakeholders in achieving prosperity and promoting development towards just world.

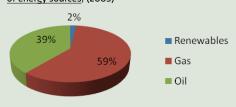




to the Cabinet

2002

<u>Energy sources – Share in domestic production</u> <u>of energy sources</u>, (2005)



Urban Population in Azerbaijan (% of total) 80 40 Azerbaijan Europe World

2011

2006

Country: Azerbaijan



Mayor: Mr Hajibala Ibrahim Oglu Abutalybov

Vice-Mayor: Ms Huseynova Fiduma Mammadali Gizi

Population of Baku: 2.092,400 (estimation for 2011)

Energy efficient projects & future plans in the Baku City

Baku White City: Baku White City will be one of the largest modern projects in the world, built entirely on ecologically reclaimed industrial zone. It will encompass 221 ha, consisting of 10 neighbouring districts making and will be able to accommodate approximately 50.000 people. There will be **39 ha of landscape and about 3.5 mln sqm gross built area, up to 18.000 residential and commercial units.** When completed, Baku White City will be able to provide 48.000 workplaces and **around 40.000 parking places.** BWC will add 1.3 km to existing Boulevard Line of Baku, making it largest in the world. Waterfront line will accommodate 65 meter high observation wheel – twice the current and higher than Roué de Paris. Baku White City's Fountain Square will be twice the size of the current Fountain Square (2ha). There will also be largest Retail & Entertainment Centre of the region located in Baku White City, the new metro station with exits along the Nobel avenue, one more interchange station on the Northern border of the development – Babek avenue.

TRACECA (Transport Corridor Europe- the Caucasus-Asia): aimed at developing a West-East transport corridor from Europe, across the Black Sea, through the South Caucasus and the Caspian Sea, built on the Trans-European Networks on the EU territory, the Pan European Transport Corridors in Europe, especially the Black Sea Pan European Transport Area and the New Silk Route to Asia to improve transport among other things.

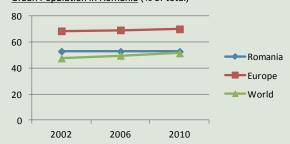
Azerbaijan State of Future Index 2011– AZ-SOFI: is an assessment of the 10-year outlook of the Future (2011-2020), based on 20 years of historical data and forecasts of 20 variables and 24 potential developments. This study will contribute to the strategic planning process for the future of Azerbaijan.

We would like to give special thanks to **Ms Huseynova Fiduma Mammadali Gizi,** Vice-Mayor of Baku, Azerbaijan, for providing us relevant information and sources.

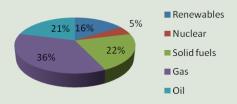




<u>Urban Population in Romania</u> (% of total)



<u>Energy sources - Share in domestic production of energy sources</u>, (2005)



Country: Romania



Mayor: Mr Sorin Oprescu

Vice-Mayor: Mr Marcel Octavian Nicolaescu

Population of Bucharest: 2.110,985 (in 2011)

Energy efficient projects & future plans in Bucharest

Bucharest Strategic Concept 2035 (CBS) is the strategy for development of Bucharest for the next 25 years, which proposes to formulate a vision of the city's economic development taking into account preservation of the environment and enhancing life quality. The strategy consists of 5 main axes. Within the Axis IV there is a detailed definition on how to protect and improve the city environment, by: rehabilitation of the environment in the dismayed and industrial areas, establishment of efficient regional system for monitoring and informing quality of the environment, extending subway network in the capital's busiest areas, cars parked on the sidewalk and boulevards moved to parking bunks. Three more car parks will be arranged, Victoria Avenue and several other downtown streets will become pedestrian areas and historic buildings will not be left in ruins to degrade, but will be refurbished. They will **refurbish 365 multi-store residential buildings** in Bucharest to reduce atmospheric pollution through energy savings. The project was financed by EIB lending 125 million €. Promotion of public transport also plays a major role in future development, as well as improved accessibility to mass transport.

Bucharest plans to improve the <u>RADET district heating system</u>, which is the second largest in the world, with over 1.800 kilometres of piping with new hydronic solutions to make the heating service even more energy efficient.

We would like to give special thanks to Mr Sorin Oprescu, Mayor of Bucharest, Romania, for providing us relevant information and sources.

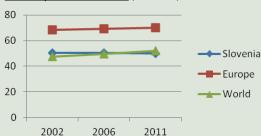
We would like to give special thanks to **Mr Sorin Oprescu**, Mayor of Bucharest, Romania, for providing us relevant information and sources.



<u>Energy sources – Share in domestic production</u> <u>of energy sources</u>, (2005)



<u>Urban Population in Slovenia</u> (% of total)



Country: Slovenia

_{city:} <u>Ljubljana</u>

Mayor: Mr Zoran Janković

Vice-Mayors: Mr Janez Koželj, Ms Tjaša Ficko, Ms Jelka Žekar, Mr Aleš Čerin

Population of Ljubljana: 280.607 (2012)

Energy efficiency projects & future plans in Ljubljana

In June 2012, the City of Ljubljana presented Energy for the City of the Future, The Sustainable Energy Action Plan.

The »Ljubljana Smart Town« research project of the City of Ljubljana, managed by Centre for Energy Efficiency at the Jožef Stefan Institute and Siemens, has two scenarios of sustainable development of City of Ljubljana up to the year 2050:

- · Reference: -50% CO,
- · Sustainable Excellence: -80% CO,

»Ljubljana 2025« is a vision for the long-term development of the city. The vision should stimulate the creation of a self-image of the city that shows what the city means to its residents and what their expectations about its future are.

The City of Ljubljana has provided 40ha of new parks, 40.000 new trees, P&R system and it is promoting <u>sustainable mobility</u> by creating new areas for pedestrians and cyclists. Currently, the City is nominated for the <u>European green capital award</u>.

<u>Energy rehabilitation</u> of multi-dwelling buildings is a good practice case of improving energy efficiency through reduction of energy consumption for heating in the City.

Ljubljana's <u>BicikeLJ</u> self-service bike-borrowing system enables the simple borrowing and return of bikes. The number of system users is approaching 15% of the population of Ljubljana, while the number of all uses will soon pass one million. October 3rd saw a new record set – 4.113 uses in a single day.

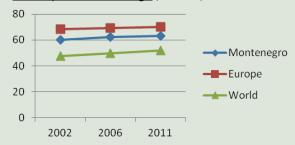
Two free-of-charge electric vehicles called '<u>Cavaliers</u>' travel around the Old Town, which residents of and visitors to the capital can use to help them get around within the city centre pedestrian zone.

We would like to give special thanks to **Mr Zoran Janković**, Mayor of Ljubljana, Slovenia for providing us relevant information and sources

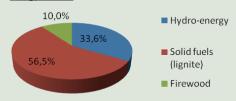
City panorama



<u>Urban Population in Montenegro</u> (% of total)



<u>Energy sources - Share in domestic production of energy sources</u>, (2006)



Country: Montenegro



Mayor: Mr Miomir Mugoša

Vice-Mayors: Mr Vladan Vučelić

Population of Podgorica: 187.085

Energy efficient projects & future plans in Podgorica

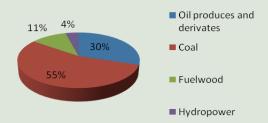
Letter of intent "Capacity Building for Energy Management" among the cities of Podgorica, Zagreb, Sarajevo and Skopje was signed in the year 2009. Office of Energy Management with Info Centre for Energy Efficiency was established in cooperation between the City of Podgorica and GIZ in the year 2010. The City of Podgorica also joined the Covenant of Mayors in the year 2010. In the year 2012 the Memorandum of Understanding was signed for establishing a network of energy efficient cities in South East Europe. The Sustainable Energy Action Plan (SEAP) was approved in May 2011. The City of Podgorica and the Housing Agency initiated the project "Improvement of living conditions". There have been flat roofs rehabilitated: thermal and hydro insulation of flacades (15.000m²) and hydro insulation of flat roofs with reflex coating protection (1.500m²).

The Global Initiative Certificate on the project <u>Podgorica – City of the Future</u>, Energy Efficient Montenegro was signed by Mr Duško Knežević, President of Atlas Group, Mr Miomir Mugoša, Mayor of Podgorica and Mr Enrico Malerba, Chief Executive Officer of EPCG on March 1st 2012. Initial activities of the project include *development of new efficiency standards for Podgorica, significant green building developments in the city and installation of smart meters throughout Montenegro to reduce waste in energy distribution and consumption.* The City plans to reconstruct facades of residential buildings at the Republic Square in Podgorica, by using active solar systems. The City defined reduction of the compensation amount for the utilities – 150 euros per square meter of solar collector installed. The construction of residential-business building <u>Atlas Capital Centre in Podgorica</u> according to highest efficiency standards promotes the new model of buildings that greatly integrate principles of green building and environmental protection. The City of Podgorica and Agency for Up-building and Development of The Capital are adapting the former building of Water Supply and Sewerage. It is assumed that the building will spend approximately 38% less energy after the adaptation, which will result in total savings of 550 MWh of electricity by 2020. The project Energy Efficiency at the »Morača« Sport Center with the objective to install a <u>HVAC system in the "Moraca" sport centre</u>, using ground water and replacing a "classic" heating/cooling system is expected to reduce CO2 emissions to zero from 2008 to 2018. The city is also implementing the project of <u>Greening of the forest in Tološi</u> (planting 534 new plants).

We would like to give special thanks to **Mr Miomir Mugoša**, Mayor of Podgorica, Montenegro, for providing us relevant information and sources.



<u>Energy sources – Share in domestic production</u> <u>of energy sources</u>, (2006)



Country: Kosovo



Mayor: Mr Isa Mustafa

Vice-Mayors: Mr Abdullah Hoti

Population of Pristina: 198.000

Energy efficient projects & future plans in Pristina

Pristina is developing into a metropolitan centre, with economic development, dynamic and modern infrastructure. Quality of life was significantly improved in all segments. Many international events on energy efficiency (Into a New Kosovo with clean energy and a healthy environment; Environment Protection and Energy Efficiency Practices, opportunities, actions) were held in the city over the past few years and the City of Pristina is also involved in many energy efficient project.

Improvement of District Heating: the objective of the project is to deliver sustainable heating to the citizens of Pristina in an integrated way through a fuel efficient energy technology that uses the by-product heat from Kosovo B that is normally wasted by being rejected into the environment.

There are plans of building <u>energy-efficient retrofit measure</u> in 63 existing schools across different municipalities and 2 hospitals in Pristina Municipality.

The City of Pristina understands development and enhancement of knowledge and awareness of youngsters and civil society on environmental and energy issues as crucial to sustainable socio-economic development. Therefore, the City is among the supporters of the <u>trainings on Energy Efficiency in Primary Schools</u> and cooperates with USAID in partnership with CHF International, in developing the concept of a "<u>Green School</u>".

Implementation of Energy Efficiency Measures in Public Buildings: the project supports de-centralisation of decision-making in the energy sector, reduces dependency on gifts and grants and will demonstrate the positive effects of applying energy efficiency technologies in existing buildings. It also assists the municipalities in meeting their legal obligations in terms of local Energy Efficiency Plans and achievement of acceptable comfort levels in public buildings. There will be 8 projects implemented in Pristina, with estimated investment of **1.308,820 €.**

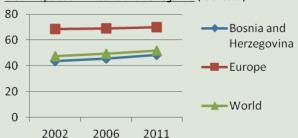
We would like to give special thanks to **Mr Isa Mustafa**, Mayor of Pristina, Kosovo, for providing us relevant information and sources.



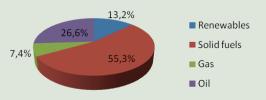




<u>Urban Population in Bosnia and Herzegovina</u> (% of total)



<u>Energy sources - Share in domestic production of energy sources</u>, (2005)



Country: Bosnia and Herzegovina



Mayor: Mr Alija Behmen

Vice-Mayors: Mr Igor Kamočaji, Mr Miroslav Živanović

Population of Sarajevo: 297.416

Energy efficient projects & future plans in Sarajevo

By signing the <u>Covenant of Mayors</u> in 2009, the City of Sarajevo committed to reduce CO² emissions by 20% by 2020. The City of Sarajevo has committed to the following plan for energy management and environmental protection:

- to reduce energy costs in the amount of at least 5% each year over the next 5 years,
- to reduce greenhouse gas emissions at the lowest possible level in the same period,
- \cdot to use energy management for improving economic efficiency in buildings,
- to improve productivity and working conditions for employees and to continuously work towards preserving the environment.

The Office for energy efficiency of the City of Sarajevo follows the mission of informing the citizens about the basic measures of energy efficiency, energy conservation, and introducing citizens to renewable energy.

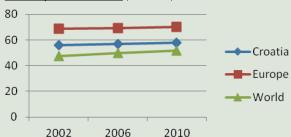
We would like to give special thanks to **Mr Alija Behmen**, Mayor of Sarajevo, Bosnia and Herzegovina, for providing us relevant information and sources.



<u>Energy sources – Share in domestic production</u> of energy sources, (2010)



<u>Urban Population in Croatia</u> (% of total)



Country: Croatia

city: Zagreb

Mayor: Mr Milan Bandić

Vice-Mayor: Ms Jelena Pavičić Vukičević

Population of Zagreb: 828.621 (census in 2011)

Energy efficiency projects & future plans in Zagreb

The City of Zagreb was the 24th signatory City to the **Green Digital Charter** - a declaration committing cities to work together to deliver the EU climate objectives through the use of Information and Communication Technologies (ICT). There have been the following key elements for carbon neutral City of Zagreb defined: Conversion of transport and travel habits; Improvements of energy efficiency in the building sector ("energetic renovation" of existing buildings and high energy efficiency in new buildings); Implementation of smart technologies/ICT (smart metering – smart grids – smart districts – smart cities); Rural-urban cooperation in promoting renewable energies; Green IT; Sustainable urban development; Integration of e-mobility in the future urban transport and energy supply systems; Sustainable procurement; and more renewable energy

»Vision of Zagreb for the 21st century« defines a set of values for selection of City's <u>strategic projects</u> divided into several groups, among which are also:

- · Environmental projects: restoration of utility waste depot in Jakuševac, waste water treatment plant,
- Investing into mobility and the City's infrastructure: project on placing 140 new low-floor trams all over the city: in 2011 the Municipality introduced 64 new buses that run on bio fuel; the pedestrian zones and bike lines have been extended. In 2012 City of Zagreb has organized **European mobility week** and **2012 Energy week**, with introductions of Information System of Rational Energy Management in the buildings of City Authority, institutions and companies owned by the city and installation of Solar systems for the preparation of consumable hot water in educational and health care institutions and in the faculties owned by the city. There was the biggest **Solar Electricity Power** plant with the capacity of producing 400.000 kW annually opened in St. Claire in Novi Zagreb.

We would like to give special thanks to Mr Milan Bandić, Mayor of Zagreb, Croatia, for providing us relevant information and sources.

We would like to give special thanks to **Mr Milan Bandić**, Mayor of Zagreb, Croatia, for providing us relevant information and sources.



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