

# **Needs Assessment Study of Local Governments and the Private Sector**

**Analysis of Demand and  
Supply, Future Projects,  
Investment and Partnership  
Potentials in the Area of Energy  
Efficiency and Renewable  
Energy Use**

**FINAL REPORT**



Network of Local Government Authorities  
of South East Europe (NALAS)

**Submitted to:**



**Submitted by:**

Development Consulting Group  
(DCG d.o.o.), Belgrade, Serbia



ESCO grupa d.o.o.,  
Rijeka, Croatia



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Network of Associations of Local Authorities of South East Europe (NALAS)  
Partizanski odredi 42/7,1000 Skopje, Macedonia

Mr Kelmend Zajazi  
Executive Director

**Re: Draft Needs Assessment Study of Local Governments and the Private Sector**

Dear Mr Zajazi,

Following NALAS comments, as well as a highly successful Advisory Board meeting, where valuable input was obtained, we have the pleasure of submitting the final report on the needs assessment study of local governments (LGs) and the private sector, aimed at designing a matchmaking platform for the International Municipal Fair NEXPO2013, to be held in Rijeka, Croatia, on September 25-27, 2013.

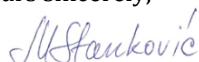
This report contains key findings, lessons learned and recommendations, following the desk research and field assessment conducted in the period March 1 – April 17, 2012 in the selected countries, per Contract No. OM-96, signed between NALAS and DCG d.o.o. on February 28, 2013.

The report includes the following:

- Overview of demand and supply of municipalities for investment/partnership projects with the private sector aiming to improve service delivery as well as increase the levels of local economic development and create new value in all municipal services areas with a special focus on Energy Efficiency and Renewable Energies and beyond.
- Catalogue of potential municipal projects in the area of Energy Efficiency and Renewable Energies in SEE.
- Overview of municipalities' interest to attend NEXPO and specific areas of interest.
- Contact list of municipalities-potential participants at NEXPO.
- Overview of demand and supply of the private companies for investment/partnership projects with local governments aiming to improve service delivery and create new value in all areas with a special focus on Energy Efficiency and Renewable Energies.
- Overview of companies' investment strategies and projects in the area of Energy Efficiency and Renewable Energies in the next 5 years.
- Overview of companies' interest to use NEXPO as a matchmaking platform and specific areas of interest.
- Contact list of companies-potential participants at NEXPO.
- Summary of value drivers, market opportunities as well as obstacles for partnerships projects between the two sectors.
- Overview and recommendations for matchmaking tools and mechanisms that work for both local governments and the business sector.
- LGA best practice developed based on the matchmaking experiences of the Croatian Association of Cities.

DCG and ESCO Grupa hope that you will find the Needs Assessment Study applicable and relevant and we look forward to future cooperation with NALAS.

Yours sincerely,



Mirjana Stanković, Assessment Team Leader

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## List of Abbreviations

|                   |                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------|
| <b>ABEA</b>       | Association of Bulgarian Energy Agencies                                                   |
| <b>BGWEA</b>      | Bulgarian Wind Energy Association                                                          |
| <b>BiH</b>        | Bosnia and Herzegovina                                                                     |
| <b>BSRAEM</b>     | Black Sea Regional Agency for Energy Management                                            |
| <b>B2B</b>        | Business to business                                                                       |
| <b>DCG</b>        | Development Consulting Group                                                               |
| <b>B2LG</b>       | Business to local government                                                               |
| <b>EE</b>         | Energy efficiency                                                                          |
| <b>EPC</b>        | Energy Performance Certificate                                                             |
| <b>EERSF</b>      | Energy Efficiency and Renewable Sources Fund                                               |
| <b>ESCO</b>       | Energy Service Company                                                                     |
| <b>EM</b>         | Energy Management                                                                          |
| <b>EU</b>         | European Union                                                                             |
| <b>FbiH</b>       | Federation of Bosnia and Herzegovina                                                       |
| <b>FiT</b>        | Feed-in-tariff                                                                             |
| <b>FZOEU</b>      | Fund for Environmental Protection and Energy Efficiency                                    |
| <b>GIS</b>        | Geographic information system                                                              |
| <b>GIZ</b>        | Deutsche Gesellschaft für Internationale Zusammenarbeit                                    |
| <b>HVAC</b>       | Heating ventilation and air conditioning                                                   |
| <b>LCCA</b>       | Life-cycle cost assessment                                                                 |
| <b>LEAP</b>       | Local Environmental Action Plan                                                            |
| <b>LED</b>        | Local economic development                                                                 |
| <b>LG</b>         | Local government                                                                           |
| <b>LG2B</b>       | Local government to businesses                                                             |
| <b>LG2LG</b>      | Local government to local government                                                       |
| <b>PPP</b>        | Public-private partnership                                                                 |
| <b>NALAS</b>      | Network of Associations of Local Authorities in South-East Europe                          |
| <b>RE</b>         | Renewable energy                                                                           |
| <b>RES</b>        | Renewable energy sources                                                                   |
| <b>RfP</b>        | Request for Proposals                                                                      |
| <b>SEAP</b>       | Sustainable Energy Action Plan                                                             |
| <b>SEE</b>        | South-East Europe                                                                          |
| <b>SEM</b>        | Systemic Energy Management                                                                 |
| <b>SKGO</b>       | Serbian Association of Local Governments (Standing Conference of Towns and Municipalities) |
| <b>SME</b>        | Small and medium-sized enterprises                                                         |
| <b>SOFENA</b>     | Sofia Energy Agency                                                                        |
| <b>The Client</b> | NALAS, NEXPO Steering Committee and Matchmaking Advisory Board                             |
| <b>UBBSLA</b>     | Union of Bulgarian Black Sea Local Authorities                                             |
| <b>USAID</b>      | United States Agency for International Development                                         |
| <b>ZELS</b>       | Macedonian Association of Local Governments                                                |

## EXECUTIVE SUMMARY

NEXPO 2013 will be held in Rijeka and Opatija, Croatia, on September 25-27 2013, in partnership with the Association of Cities of the Republic of Croatia, the Association of Municipalities of the Republic of Croatia and the Cities of Rijeka and Opatija. The central topic of NEXPO 2013 is *EU Integration*, but the specific focus of this year's Fair is to serve as a matchmaking platform for local governments and business sector representatives in the area of *energy efficiency (EE)* and use of *renewable energy sources (RE)*.

The *purpose* of this needs assessment study is to provide a framework and a basis for creating a viable private-public matchmaking platform for NEXPO 2013. It is aimed at identifying and defining municipal and the private sector supply and demand, value drivers, market opportunities and key obstacles to investment attraction and PPP establishment, with a specific focus on the business-enabling environment and planned projects in the area of EE and renewable energy RE use, best EE and RE practices and success stories, all in the context of the EU integration. This Needs Assessment has been implemented within the GIZ/ORF funded project "Design and Establishment of an Exchange Platform for Local Governments and the Business Sector".

The assessment study is based on a survey of local governments in 12 NALAS-member countries and an in-depth assessment of 3 countries (Bulgaria, Croatia and Serbia) and EE/RE companies in 6 selected countries (Bulgaria, Croatia, Germany, Serbia, Slovenia and Turkey) in the period March-April 2013. 103 local governments (LG) in 11 SEE countries (all NALAS members, excluding Albania) took part in the survey, while 70 LGs were visited in the field. 72 EE/RE companies from 6 countries responded to the online survey and 114 were visited in the field. 27 LGs presented their future EE/RE projects and 52 companies presented their products and services, to be included in the NEXPO 2013 Catalogue.

### **Key Findings**

**Strategic Framework for Energy Efficiency and Renewable Energy.** The strategic framework is not sufficiently developed. Many LGs still lack a comprehensive sustainable energy action plan (SEAP). There is rarely a comprehensive approach that would provide integrated framework that fits local energy plan into overall local economic development strategy and a substantial mismatch between strategic considerations and planning of capital investments. Many documents and programs are of formal character and do not transfer into real projects. Only 15.8% of the surveyed local governments (those with developed spatial plans and advanced GIS features) have an appropriate basis for developing EE/RE projects in a more systematic and comprehensive manner.

Municipal strategic documents emphasize three major EE/RE areas – EE in public buildings, public lighting, and public transport. Strategies, programmes and projects in the countries-members of the Covenant of Mayors are driven by the "20-20-20" Goal.

**Availability of Locations for Investments.** Most LGs have available locations for investments (82% of the surveyed sample). However, this number is significantly decreased when it comes to locations with available communal infrastructure (38%), completed regulation plans (26.3%), availability of database of investment locations (19%) and their public availability on the website (6.3%). One of the biggest drawbacks for investors is a lack of proper technical documents and a lack of accurate and accessible data necessary for a preliminary evaluation of investment location. A significant part of NEXPO 2013 should be dedicated to capacity building and presentation of municipal best practices in location databases and marketing. It is recommended that NALAS provides guidelines to municipalities on what to present at the fair and how to prepare successful presentations of investment locations.

**Incentives Offered to Investors in EE/RE Projects.** The answers suggest that the top three incentives LGs are ready to offer to investors at the moment are non-financial ones, in terms of technical assistance to investors, accelerated building and permitting process or EE projects and RE projects and workforce development services. There are not many possibilities for giving significant incentives for EE/RE projects financially, due to the fact that the level of centralization in the region is still very high and incentives and tax holidays are defined at the national level. There is some space for incentives when it comes to charges and

fees related to communal property (or property tax). To some extent, the survey indicates more lenient incentive procedures, regulations and administrative procedure for EE/RE projects.

From the private sector perspective, the most appropriate non-financial incentives for EE/RE investments include quicker processing of building permits EE measures in new and existing buildings, voluntary labeling programs (green building, energy star, zero energy, etc. and preferred treatment by government procurement for EE/RE projects. Financial incentives include corporate tax incentives, grant programs, rebate programs and green/energy efficient building programs.

**Local Governments' Capacity to Support Investments in the Area of EE/RE.** Regulatory framework for EE/RE at the local level is not developed in most of the countries. LGs increasingly recognize that the energy management is an important local government function; however, there is still a lack of notion that local government needs to have energy manager/department which can interact on equal basis with the business sector. EM databases also need to be further developed. This would be particularly helpful to those LGs who are now in the process of establishing an energy management function. A workshop on energy management that would result with the specific guidelines and clarification of the scope of work would be very beneficial. Only 63% of the surveyed cities and municipalities have an institutionalized local economic development (LED) function. LED databases are poorly developed and are not updated.

**EE/RE Projects** Priority is given to projects related to EE in buildings, public lighting, solar energy, biomass and pellet, hydro-potential use, use of geothermal potentials and wind energy. Interest in EE in buildings and lighting corresponds to the availability of EU funds for implementing the EU EE-related Directives. The efficiency of RE project implementation is mainly dictated by the extent to which there is a regulatory framework at the national level, favourable to such investments. EE in buildings is funded through national level, EU-funding and LG funds. RE projects are mainly funded by private investors and, sometimes, through partnerships.

**EE/RE Company Profile.** The surveyed companies' top three EE/RE areas of operation fully match the LGs priority areas and planned project needs – most provide products, services and works in the area of EE in buildings, solar energy – including photovoltaic and thermal energy and public lighting. Most of the companies are suppliers of renewable energy/energy efficiency technologies, offer service and installation of EE/RE efficient technologies and services of energy efficiency/renewable energy consulting. There are also manufacturers. The companies that deal with green building design and construction, service in EE/RE equipment disposal, service companies engaged in energy audits. Relatively few companies offer ESCO services. In the area of RE, the surveyed RE companies will be mainly involved in building and testing of power plants and designing of power plants. The companies participating in this survey have a long history of cooperation with local governments. Representatives of the private sector have the most extensive experience in implementing EE/RE projects in Croatia, Slovenia, Serbia, BIH, Turkey, Romania and Bulgaria. Future plans include Croatia, Serbia, Bosnia and Herzegovina – newly opening markets for EE/RE, with great potentials for investments and PPP.

**Private Sector Needs.** In order to be able to set up and implement projects at the local level, the companies need technical documentation (construction and/or technology documentation) – companies that deal with EE in buildings sector, data on energy consumption, information on available investment locations, development plans, information on costs of doing business, information of existing SMEs that could be partnered at the local level and spatial planning documents, available workforce, data on real estate property and ownership. In short, almost all of the stated information should be available to the private sector in order to create and offer EE/RE projects.

**Project Funding.** During the field visits, EE/RE project funding was one of the most explored topics. Presentation of various sources of funding should be one of the central topics at NEXPO 2013. The presentations should include both facilities through which EE/RE projects are funded and various donors for the provision of technical assistance. LGs low project preparation capacity is still the most significant impediment to accessing EU funding.

**Payback Period.** According to the survey, the acceptable payback period for LGs is 5-10 years. Most of the surveyed companies seek for investment payback in the period of up to 5 years. For larger infrastructure projects this period is 10 years, while for large infrastructure ESCO and PPP it can be 15 and more than 18 years. Some special services have much shorter payback period up to 3 years.

**Key Obstacles to Investments and Partnerships in the Area of EE/RE. *Business Sector View:***

A lack of motivation and understanding of benefits of EE/RE projects is singled out as a key obstacle to quicker progress in this area. EE is often not regarded as a priority; there is a lack of awareness on energy efficiency benefits, a lack of consistent investment plans in EE products and technologies. „Quick-win“ investments are favored over EE projects with longer payback periods. There is also a problem of lack of trust in EE technologies due to lack of information and knowledge about EE market. Two largest problems in implementation and execution of EE/RE according to the private sector are administrative barriers at the local level and low energy price. More specific issues include: a lack of information related to energy consumption in LGs, a lack of energy managers in LGs (lack of qualified personnel to talk to), delayed payment by LGs after contract execution, insufficiently transparent procedures, heavy monopoly/corruption associated with energy markets, a lack of mutual trust between the two sectors, due to bad experience and constant changes of regulations, insufficiently developed banking sector for EE/RE projects, a lack of creditors trust in models of project financing (SEE region), long-term contracts and long periods of payback and uncertainty due to increase of expenditures and increase of prices of energy and energy sources.

***Local Government View:*** a lack of information about potential partners/investors, a lack of skills on how to approach the potential partners/investors, low interest of businesses, legal obstacles, limitations imposed by public procurement procedures (both national and EU/PRAG), insufficient promotion of LGs' potentials, due to poorly defined product and services, and a lack of promotional skills. LGs particularly emphasize that, frequently, investments are not decided about at the local level - national level frequently interferes and ruins opportunities for investments.

***Participation at NEXPO 2013***

84% of the surveyed LGs are interested in NEXPO 2013. These are mostly LGs who did not participate in NEXPO 2011. It seems that the concept of NEXPO 2013 mainly suits larger cities and municipalities. In order to ensure participation of smaller local governments, there has to be some funding, or leverage provided either from the national level, or international sources. Smaller municipalities should be encouraged to partner for taking a joint booth with neighbouring municipalities or regional development agencies.

76.5% surveyed companies have expressed interest in participating in NEXPO. The greatest interest for NEXPO 2013 was expressed by Croatian, German and Slovenian companies, which is logical, with respect to the venue of the Fair. There is also significant interest from Serbia and to some extent from Bulgaria. Turkish EE/RE business sector is the least interested, as it seems to gravitate more towards Asian and African markets.

**Local Governments and the Private Sector's Interests as a Basis for Matchmaking.** LGs see NEXPO 2013 as an opportunity to attract investors for municipal projects, networking with other SEE cities and municipalities, represent the city/municipality at the Fair, exchange of experience at various knowledge sharing platforms, establish partnerships for projects,.

The private sector's interest for activities at the Fair is more focused and is mostly based on getting information about planned infrastructure and other development plans and projects of local governments. The private sector wants to see prepared projects in energy efficiency/renewable energy EE/RE, information about SEE cities/municipalities' investment priorities and needs in the area of EE/RE. They also want to present new EE/RE technologies. Companies are also interested in financial models and local SMEs as potential partners. Reasonable interest is presented for learning about regulatory framework, presentation of SEE cities/municipalities' investment locations and presentation of national, regional and local government incentives and funding schemes.

With regard to the matchmaking process, the private sector is mostly interested in direct contact with potential clients and start concrete projects. Pre-appointed business-to-local government meetings and presentation of the company. The interest for presentation of EE/RE country specifics, roundtables with city/municipality representatives, topic-specific forums and participation at the conference is also considerable.

Therefore, it is very important that the NEXPO 2013 organizers carefully plan the matchmaking process, by matching the LG Project Catalogue Input with the EE/RE Company Catalogue presentations of projects and services and by sending the information to municipalities/companies prior to the Fair.

It is also very important that the organizers adopt a facilitator's role in this process and that they assist the LGs with clear Guidelines and Templates for preparing their profiles and presentations to match the exact needs of the private sector.

The largest interest of the private sector is to meet representatives of local governments in charge with the consumption of energy and energy sources – energy managers. This shows that private sector is mostly interested in direct contact with operative representatives of LGs in order to obtain necessary information more easily and to increase their chances to conduct concrete projects. The companies would like to meet heads of city/municipality departments, sectoral ministry representatives, mayors, representatives of energy efficiency networks, heads of regulatory agencies. It is important to note that there is a strong interest to meet all investment-related stakeholders.

### ***Recommendations for a Matchmaking Platform***

**Prior to NEXPO 2013:** Establish mechanisms for facilitating communication between LGs and the private sector: post Catalogues of Municipal Projects and EE/RE companies on NALAS NEXPO 2013. Website; allow possibility to add new projects and company presentations to the Catalogues through an online, log-in application. Create search options by LG/company/key words, so that interested parties can access information on each other; publish data and contacts of all participating LGs and EE/RE companies prior to the Fair; publish tips on preparation for the Fair online (based on the survey results) – for both LGs and the private sector; provide Guidelines on the preparation of successful presentation for investors; provide opportunity to participants to present themselves prior to the Fair, by featuring one NEXPO 2013 participating LG and one company on the website's cover pager on daily basis, establish a discussion board on NEXPO 2013 website, to allow prospective participants to start discussion boards and add their opinions on the most important topics; companies expect to be contacted by local governments prior to the Fair, with a specified request for cooperation, partnership, products or services; facilitate pre-arrangement of meetings/appointments for meetings and introductions to people and companies interested in mutual business before the Fair (LG2LG, LG2B, B2LG, B2B) (provide option for meeting appointments and meeting room reservations online; provide online tips to municipalities on how to prepare for and hold a meeting with an investor or potential partner from the private sector; publicize clear notifications/guides/agendas/venues about all happenings at the Fair; organize media activities to get as much visitors and providers in EE sector; prepare indicators of NEXPO 2013 success and define a monitoring and evaluation plan.

**During NEXPO 2013: Carefully plan opportunities for investment attraction** through booth presentation, meetings with potential investors in EE and RE projects and other areas, round tables with business sector representatives, focus groups to discuss topics relevant municipal activities, round table with private investors, video presentations of municipal greenfield and brownfield locations (and opportunities for investments), video presentations of companies (products, services, planned projects), contest for the best municipal presentation for investors, workshop on marketing for investment attraction, open space forums. **Ensure Access to Information Sources of Funding:** presentations of various sources of funding, presentation of donor-funding opportunities (EU funds, bilateral donors, development loans), tips for accessing funds, presentations of best practices in accessing funding, meetings with donors and other potential sources of funding. **Exchange of experience:** presentation of best practice examples, organize various knowledge-sharing events (round tables, open space, forums, focus groups, etc.), exchange of experiences between municipalities and businesses; possibilities of common representing several (two or three) municipalities with similar problems and goals, joint training events for LGs and the private sector. **EE/RE project**

**presentations** of local renewable energy sources (studies of potential, natural resources), EE municipal projects (reserved time and venue), best practice projects in EE and RE in SEE countries, specific projects by EE/RE companies and LGs, EE projects at the County level/intermunicipal projects, best products and new technologies in the area of EE, PPP and ESCO models. **Knowledge sharing through workshops, forums, open spaces** on the following topics: PPP, ESCO, integrated approach to EE/RE in the context of sustainable development, public procurement, SEAP, energy management, investment attraction. **LG2LG networking and Mayors events:** events related to the promotion of membership in the Covenant of Mayors, joint meetings with other mayors who have signed the Covenant of Mayors, partnering municipalities in neighboring countries for municipal projects, provide new networking solutions, expand networks with other local governments, opportunities for Mayors to meet investors. **B2B Networking:** provide opportunities for EE/RE companies to meet each other and large EE/RE investors to meet local SMEs.

**After NEXPO 2013:** Adopt a holistic approach: provide information about LGs and companies prior to the fair, at the Fair and after the Fair, perform a follow-up survey of participants' satisfaction with the Fair, publish results of the survey on NEXPO 2013 website, conduct assessment of the Fair's results (after 6-12 months), identify best practices in EE/RE and establish a regular practice to make them accessible to LGs and the private sector, publish news on successful investments and partnerships resulting from NEXPO 2013, make NEXPO website a learning platform, with useful information for participants from both sectors, with a possibility to continue interaction after the Fair, start preparing for the next NEXPO (a preliminary announcement of the next Fair should be made at NEXPO 2013).

**Conclusion.** The needs assessment study has provided a solid overview on the municipal status, capacities and needs, as well as information on the companies operating in SEE region in the area of EE/RE. The study is particularly valuable in the sense that it provides a comparative analysis of the demand and supply of local governments, with that of the private sector, which serves as a basis for defining the matchmaking platform for the International Municipal Fair NEXPO 2013. The study is very important as a rare example of an in-depth assessment conducted prior to a local government fair. In that sense, it can serve as an example to other organizers of similar events who would be interested in learning about the steps that need to be taken in order to ensure its successful organization, as well as tangible results measured by the number of investments attracted and public private partnerships established in the participating local governments.

## 1. INTRODUCTION

### 1.1. Background

NEXPO International Municipal Fair (<http://nexpo.nalas.eu>), organized by the Network of Associations of Local Authorities in South East Europe (NALAS), is the largest and most important municipal event in South-East Europe (SEE). It brings together local governments, local government associations, development agencies, civil society organizations and businesses from SEE and beyond. NEXPO combines fair exhibitions, thematic conferences, workshops and other side events of interest to local governments and associations of local governments in South East Europe, allowing them to discuss common challenges and to present innovative approaches in various areas of good governance, local economic development, environmental protection, social inclusion etc., always from the perspective of the European integration process. NEXPO 2011 was held in Sarajevo, Bosnia and Herzegovina and hosted over 2000 visitors, 100 exhibitors and 200 mayors from SEE. NEXPO 2013 will be held in Rijeka and Opatija, Croatia, on September 25-27 2013, in partnership with the Association of Cities of the Republic of Croatia, the Association of Municipalities of the Republic of Croatia and the Cities of Rijeka and Opatija.



The central topic of NEXPO 2013 is *EU Integration*, but the specific focus of this year's Fair is to provide multiple opportunities for local governments and business sector representatives to meet each other, initiate cooperation, create partnerships and agree on investments in the area of *energy efficiency* and use of *renewable energy sources*. The focus of the event will be on promoting practices and experiences amongst

municipalities, but also on building up a regional platform enabling municipalities to exchange with suppliers, service providers, investors and other private stakeholders interested in operating or investing in municipal services. The workshops and matchmaking will focus on Energy Efficiency and Renewable Energy, specifically: energy auditing in public buildings, public lighting, energy efficient construction, insulation, eco-friendly municipal and regional transport, public energy awareness campaigns and renewable energy (solar, geothermal, hydropower, biomass, wind).

Cooperation and partnerships between local governments and the private sector have been long promoted as a promising means to increase investments, improve and modernize services with leveraged costs and, in the long run, reduce unemployment and improve the standard of living of their citizens. However, as NALAS observes in the ToR for this assessment, while examples of successful private-public cooperation and partnerships exist, most local governments still fail to reach the necessary level of business-friendliness which would allow them to attract the desired number and amount of investments to their local communities. Although it cannot be denied that local governments face many external challenges and obstacles, not uncommonly, they adopt a passive role, failing to proactively present and use their own resources and capacities for investment attraction. Due to such lack of proactive approach and public sector initiative, the private sector is frequently not aware of municipal demand and supply and their projects under development. Equally, the private sector's demand and supply is not sufficiently known by local governments. In order for NEXPO 2013 to best

serve its purpose, NALAS had decided to take a series of preliminary steps to ensure that a productive exchange between local governments and the private sector at the Fair takes place, with the goal of producing visible and measurable outcomes –new initiatives created, investment contracts signed and partnerships for specific projects established.

## **1.2. Scope, Goal and Objectives of the Needs Assessment Study**

In order to provide maximum benefit for SEE municipalities, NALAS has mobilized all available resources to create a matchmaking platform that would result in viable partnerships between the participating local governments and private sector representatives. In particular, in February 2013, NALAS contracted with the Consortium of Development Consulting Group (DCG d.o.o.) from Belgrade, Serbia and ESCO grupa d.o.o, from Rijeka, Croatia, to prepare a comprehensive need assessment study, including local governments in 12 NALAS-member countries and private companies involved in EE/RE business in 6 countries.

The *purpose* of this needs assessment study, therefore, is to provide a framework and a basis for creating a viable private-public matchmaking platform for NEXPO 2013. It is aimed at identifying and defining municipal supply and demand, value drivers, market opportunities and key obstacles to investment attraction and PPP establishment, with a specific focus on the business-enabling environment and planned projects in the area of on energy efficiency (EE) and renewable energy (RE) use.

The needs assessment study targets both local governments and the private sector. Although the study has a specific thematic focus, it will also provide a general overview of current local government capacities to attract investments, as well as to reach funding for and manage projects. By offering a comprehensive overview of the private sector demand and supply in the area of EE and RE, and their expectations of local government conduct, thereof, this study should provide specific ideas and innovative approaches to establishing successful partnerships between these two sectors, along with recommendations for removing some commonly recognized barriers to this process, as well as for creating new values and improved services for citizens and businesses.

Finally, this needs assessment study should be seen as a resource of best EE and RE practices and a compendium of success stories, but it will also place investment attraction and public-private partnerships in a wider context, by providing a platform and further guidance for NALAS member-countries for taking an improved EU course towards EU integration.

The following are the specific objectives of the needs assessment of *local governments*:

- To make an overview of demand and supply of municipalities for investment/partnership projects with the private sector aiming to improve service delivery as well as increase the levels of local economic development and create new value in all municipal services areas, with a special focus on Energy Efficiency and Renewable Energies and beyond.
- To identify municipal needs and priorities and potential LG projects in the area of Energy Efficiency and Renewable Energies in SEE and get input for a Catalogue to be prepared by NALAS.
- To provide an insight into the challenges and obstacles LGs face in the process of investment attraction and project implementation in the area of EE and in general.
- To provide an overview of local governments' local economic development (LED) and energy management (EM) capacity.
- To survey SEE local governments' interest to attend NEXPO 2013.

- To identify LGs' specific areas of interest – what they would like to present, and how they would like to do it; what new learning they expect to get from NEXPO 2013, and in what way.
- To provide a contact list of municipalities-potential participants at NEXPO 2013.

The *private sector* needs assessment study has been designed with the following objectives in mind:

- To provide an overview of demand and supply of the private companies for investment/partnership projects with local governments aiming to improve service delivery and create new value in all areas, with a special focus on Energy Efficiency and Renewable Energies.
- To better understand companies' investment strategies and projects in the area of Energy Efficiency and Renewable Energies in the next 5 years.
- To get an understanding of private sector expectations from local governments, including commonly recognized challenges and obstacles to entering public-private partnerships.
- To survey companies' interest to use NEXPO as a matchmaking platform and specific areas of interest.
- To provide a contact list of companies-potential participants at NEXPO.
- To provide a Catalogue of companies interested in partnering with local governments, including their business strategies, products, services and planned projects.

A comparative analysis of the needs of local governments and the private sector should result in providing:

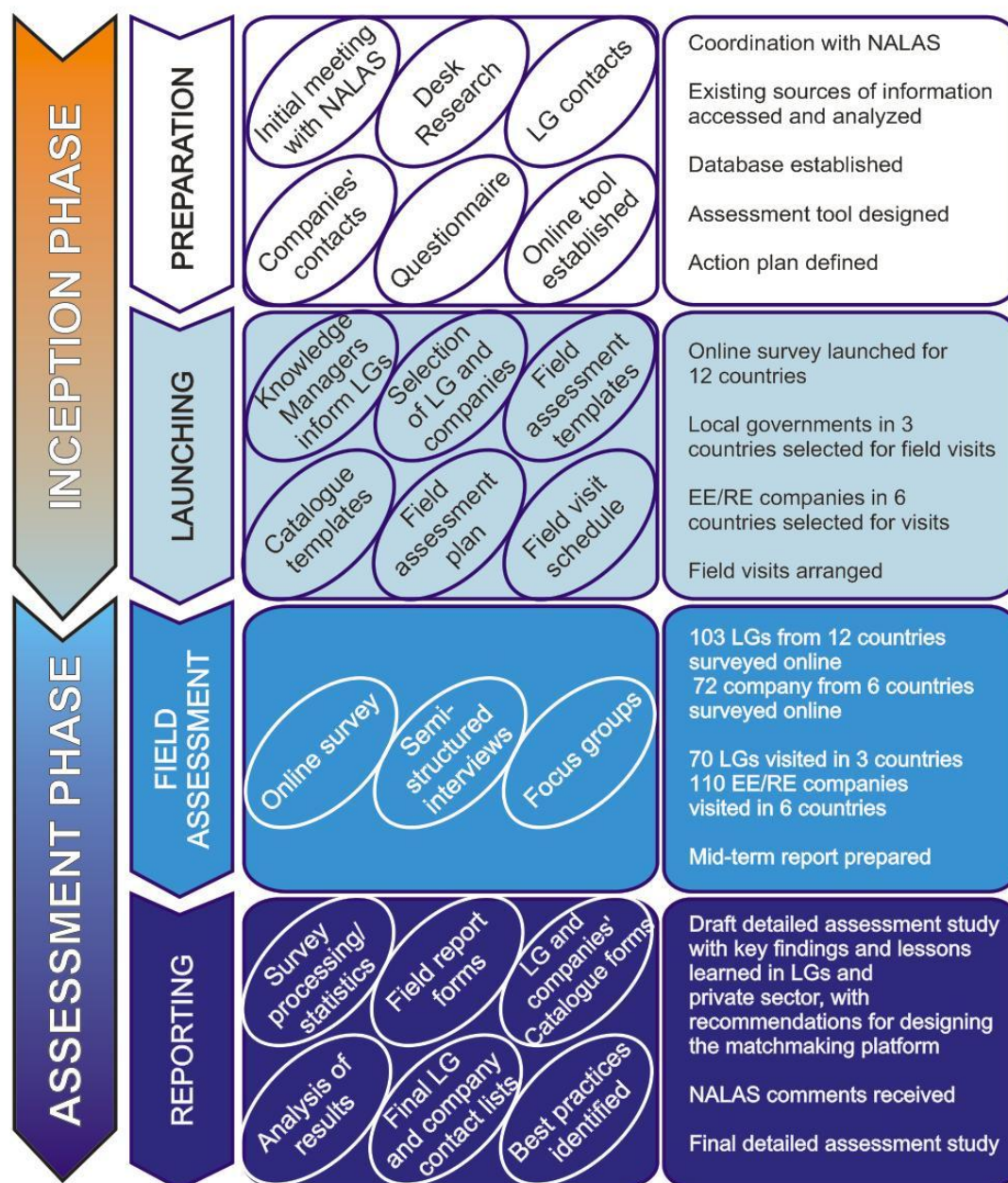
- An overview of overlapping interests of local governments and companies that can be used as a basis for establishing specific partnerships.
- A list of key stakeholders and their roles in the process.
- A summary of value drivers, market opportunities as well as obstacles for partnerships projects between the two sectors.
- An overview and recommendations for the matchmaking tools and mechanisms that work for both local governments and the business sector.
- A compendium of best practices developed based on matchmaking experiences and innovative initiatives in the SEE countries.
- A set of recommendations for introducing improvements in service delivery and approaches to the investment attraction process, based on the lessons learned and best practices identified in the selected SEE countries (an added value of this needs assessment study).

This Needs Assessment has been implemented within the GIZ/ORF funded project "Design and Establishment of an Exchange Platform for Local Governments and the Business Sector".

### **1.3. Assessment Methodology and Tools**

The study included a survey of local governments in 12 NALAS-member countries and in-depth assessment of 3 Local Action Group-participating countries (Bulgaria, Croatia and Serbia), as well as EE/RE companies in 6 selected countries (Bulgaria, Croatia, Germany, Serbia, Slovenia and Turkey). Such a large sample required a carefully planned and designed approach and methodology, to allow the assessment team to collect a set of reliable and accurate data, necessary for refining the key findings and making the necessary generalizations and inputs for designing a matchmaking platform.

The desk research conducted at the beginning of the assessment process and an initial meeting with NALAS helped the team to better understand the client's expectations and get clear guidelines, necessary for the preparation of a detailed action plan, preparation of the questionnaires and selection of the local governments and EE/RE companies for field visits. The following table provides a complete flowchart of the assessment process, including the assessment tools/techniques and outputs:



All deliverables produced in the course of the assessment are available as annexes to this report.

The actual assessment timeframe was slightly modified compared to the planned one (two weeks into May 2013), in order to give municipalities some additional time to respond to the online survey, as well as to accommodate the availability of the NALAS Advisory Board for presentation of the needs assessment study results:

| Activity                         |                                                                              | Milestone | Feb-13 | Mar-13 | Apr-13 | May-13 |
|----------------------------------|------------------------------------------------------------------------------|-----------|--------|--------|--------|--------|
| <b>1. Preparatory Phase</b>      |                                                                              |           |        |        |        |        |
| 1                                | Initial meeting with NALAS                                                   |           |        |        |        |        |
| 2                                | Initial desk research                                                        |           |        |        |        |        |
| 3                                | Contract signing                                                             |           |        |        |        |        |
| 4                                | Preparation of methodology and action plan for the assignment execution      |           |        |        |        |        |
| 5                                | Approval of Methodology by NALAS                                             |           |        |        |        |        |
| 6                                | Introductory workshop for Assessment Team members and counterparts           |           |        |        |        |        |
| <b>2. Field Assessment</b>       |                                                                              |           |        |        |        |        |
| 1                                | Desk research                                                                |           |        |        |        |        |
| 2                                | Online survey of 10% of the LGs in 12 countries,                             |           |        |        |        |        |
| 3                                | Collection and processing of online survey results                           |           |        |        |        |        |
| 4                                | Detailed needs assessment of Serbian municipalities                          |           |        |        |        |        |
| 5                                | Detailed needs assessment in Bulgarian municipalities                        |           |        |        |        |        |
| 6                                | Detailed needs assessment in Croatian municipalities                         |           |        |        |        |        |
| 7                                | Detailed assessment of private sector in 6 countries:                        |           |        |        |        |        |
|                                  | Serbia (DCG)                                                                 |           |        |        |        |        |
|                                  | Croatia (ESCO)                                                               |           |        |        |        |        |
|                                  | Bulgaria (DCG)                                                               |           |        |        |        |        |
|                                  | Slovenia (ESCO)                                                              |           |        |        |        |        |
|                                  | Germany (ESCO)                                                               |           |        |        |        |        |
|                                  | Turkey (DCG)                                                                 |           |        |        |        |        |
| <b>3. Analysis and Reporting</b> |                                                                              |           |        |        |        |        |
| 1                                | Analysis of results                                                          |           |        |        |        |        |
| 2                                | Submission of mid-term report                                                |           |        |        |        |        |
| 3                                | Submission of draft detailed Assessment Study to NALAS                       |           |        |        |        |        |
|                                  | NALAS' feedback to the report                                                |           |        |        |        |        |
| 4                                | Finalization of detailed Needs Assessment Study, corrections and adjustments |           |        |        |        |        |
| 5                                | Presentation of results to NALAS Advisory Board (interactive workshop)       |           |        |        |        |        |
| 6                                | Final corrections, following the presentation to NALAS                       |           |        |        |        |        |
| 7                                | Submission of Final Needs Assessment Study to NALAS                          |           |        |        |        |        |

Close cooperation with NALAS throughout the needs assessment conducted in the field, has ensured appropriate coordination of activities, as well as quality control of the process, applied methodology and tools, appropriate branding and message delivery. On April 3, DCG submitted a Mid-Term Report, which provided an overview of the activities completed until that date.

## 2. NEEDS ASSESSMENT RESULTS, KEY FINDINGS AND LESSONS LEARNED

### 2.1. Local Governments

Local governments in 12 NALAS-member countries were officially invited to take part in the online survey,

|                                               |            |
|-----------------------------------------------|------------|
| <b>Countries surveyed online</b>              | <b>11</b>  |
| <b>Local governments surveyed online</b>      | <b>103</b> |
| <b>In-depth assessed countries</b>            | <b>3</b>   |
| <b>Visited Local Governments</b>              | <b>70</b>  |
| <b>LG projects presented in the Catalogue</b> | <b>27</b>  |

through their national associations<sup>1</sup>. At least one response was obtained from all countries, except Albania (despite the fact that efforts have been made to mobilize municipalities' response through the NALAS Knowledge Management Assistant in Albania). The original target was to obtain responses from 10% of the total number of local governments in each of the 12 countries. However, as the mid-term review indicated low responsiveness, a new target was set in coordination with NALAS – to pursue a total of 100 responses. Several reasons for low responsiveness have been identified:

- The associations' lack of interest and incentives to motivate LGs to fill in the survey and to assist them in the process. This is further supported by the fact that Bulgaria, Croatia and Serbia have been more responsive, due to the assessment team's direct contact and communication with these LGs.
- Many LGs expected to know the details about NEXPO 2013 costs at the time of filling in the survey.
- Most LGs were discouraged by the fact that the online survey was in English language. This issue was also repeatedly encountered during the field visits. Some LGAs, coordinated by NALAS Knowledge Management Assistants (such as Moldova, Turkey, etc.) took their own initiative into translating the survey, in order to help their local governments respond more easily;
- In some LGs, the survey announcement letter did not reach the right person, due internal communication problems, or because the energy manager is not within the local administration. A random check in several LGs in Serbia and Croatia has confirmed this assumption.
- Time given to the LGs to fill in the survey may have been too short. The deadline for filling in the survey was extended three times, in order to reach the newly set target number (100). For this reason, in agreement with NALAS, this study will be based on 103 responses (received by April 18, 2013) and the field assessment results, while the online survey will remain to be open for those LGs who are willing to participate in it.

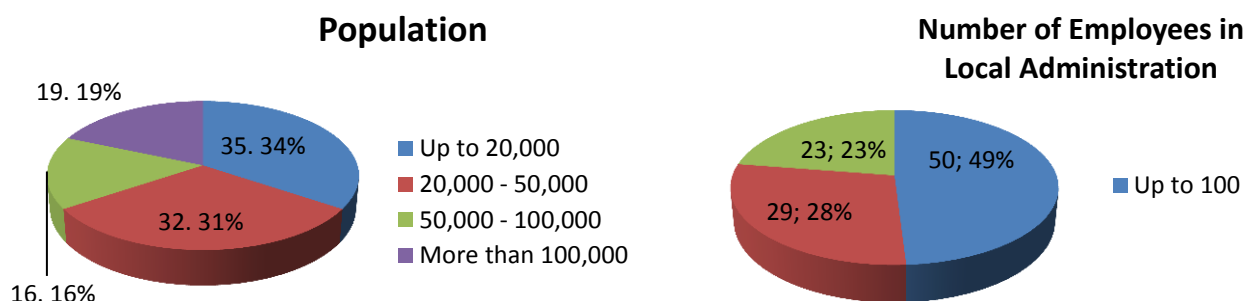
The following table provides a breakdown of the assessed municipalities, including their response rate to the online survey, as well as the information whether they have been able to provide input for the Catalogue of Municipal Projects:

| Country                       | Municipality         |                                                                                                                                                                           |    |
|-------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| <b>Bosnia and Herzegovina</b> | Surveyed online      | Prijedor, Žepče, Trebinje, Gračanica, Teslić, Gradiška, Bijeljina                                                                                                         | 7  |
|                               | <b>Catalogue</b>     | Gracanica, Trebinje                                                                                                                                                       | 2  |
| <b>Bulgaria</b>               | Surveyed online      | Plovdiv, Maglizh, Bobov dol (Kustendil Region), Dobrich, Gabrovo, Blagoevgrad, Pomorie, Varna, Burgas, Pavlikeni, Čepelare, Svishtov, Slivnitsa, Vratsa, Dolna Mitropolia | 15 |
|                               | Visited              | Blagoevgrad, Burgas, Varna, Dobrich, Veliko Tarnovo, Plovdiv, Lovech, Shumen, Gabrovo, Pazarjik, Kjustendil, Sofia                                                        | 12 |
|                               | Surveyed and visited | Dobrich, Gabrovo, Blagoevgrad, Varna, Burgas, Plovdiv                                                                                                                     | 6  |
|                               | <b>Catalogue</b>     | Maglizh, Varna                                                                                                                                                            | 2  |

<sup>1</sup>Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Kosovo, Macedonia, Moldova, Montenegro, Romania, Serbia, Slovenia, Turkey

|                   |                      |                                                                                                                                                                                                                                                                                                                                                                                         |    |
|-------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| <b>Croatia</b>    | Surveyed online      | Labin, Istarska Županija, Brodsko-posavska Županija, Crikvenica, Križevci, Brdovec, Pazin, Koprivnica, Vukovar, Zabok, Osijek, Bjelovar, Zadar County, Ogulin, Dubrovnik, Slavonski Brod, Kraljevica, Pula, Rijeka, Sisak, Sisak County, Ozalj, City of Zadar, Velika Gorica, Čakovec, Šibenik, Severin                                                                                 | 27 |
|                   | Visited              | Dubrovnik, Čakovec, Pula ,Rijeka,Sisak, Sisak County, Ozalj, Zadar County ,Velika Gorica, Slavonski Brod, Istarska županija, Brodsko-posavska županija ,Crikvenica, Križevci, Brdovec, Pazin, Koprivnica, Vukovar, Zabok, Osijek, Ogulin, Bjelovar, City of Zadar                                                                                                                       | 23 |
|                   | Surveyed and visited | Istarska Županija, Brodsko-posavska Županija, Crikvenica, Križevci, Brdovec, Pazin, Koprivnica, Vukovar, Zabok, Osijek, Bjelovar, Zadar County, Ogulin, Dubrovnik, Slavonski Brod, , Pula, Rijeka, Sisak, Sisak County, Ozalj, City of Zadar, Velika Gorica, Čakovec,                                                                                                                   | 23 |
|                   | <b>Catalogue</b>     | Zabok, Osijek, Zadar County, Brdovec, Severin, Crikvenica, Koprivnica, Pula, Vukovar, Brodsko-posavska Županija, Križevci, Dubrovnik                                                                                                                                                                                                                                                    | 12 |
| <b>Kosovo</b>     | Surveyed online      | Djakova, Shtime                                                                                                                                                                                                                                                                                                                                                                         | 2  |
| <b>Macedonia</b>  | Surveyed online      | Negotino, Gostivar                                                                                                                                                                                                                                                                                                                                                                      | 2  |
| <b>Moldova</b>    | Surveyed online      | Bahrinesti Village, Larga Village, Soroca Town, Radulenii Vechi Village, Riscani, Rogojeni Village, Marculesti Village, Capaclia                                                                                                                                                                                                                                                        | 8  |
| <b>Montenegro</b> | Surveyed online      | Podgorica, Bar, Mojkovac, Tivat, Nikšić                                                                                                                                                                                                                                                                                                                                                 | 5  |
|                   | <b>Catalogue</b>     | Bar                                                                                                                                                                                                                                                                                                                                                                                     | 1  |
| <b>Romania</b>    | Surveyed online      | Haghig                                                                                                                                                                                                                                                                                                                                                                                  | 1  |
| <b>Serbia</b>     | Surveyed online      | Aleksinac, Bor, Požega, Čuprija, Ivanjica, Arilje, Odžaci. Kula, Obrenovac (Belgrade City Municipality), Čajetina, Vladičin Han, City of Niš, Žitište, Sokobanja, Mali Zvornik, Žabalj, Niška Banja (Niš City Municipality), Nova Varoš, Ub, Bela Palanka, Crveni Krst (Niš City Municipality), Pantelej (Niš City Municipality), Sjenica, Varvarin,                                    | 24 |
|                   | Visited              | Pirot, Tutin, Vlasotince , Prokuplje, Aleksinac, Požega, Varvarin, Čuprija, Bor, Bela Palanka, Niška Banja, Sokobanja, Žitište, Obrenovac -city of Belgrade, Čajetina, Crveni Krst, Pantelej, Niš,Ub, Nova Varoš, Žabalj, Mali Zvornik, Vladičin Han, Sjenica, Kula, Odžac, Arilje, Ivanjica, Paraćin, Preševo, Zvezdara - city of Belgrade, Medvedja, Brus, Vranje, Priboj, Prijepolje | 36 |
|                   | Surveyed and visited | Aleksinac, Požega, Varvarin, Čuprija, Bor, Bela Palanka, Niška Banja, Sokobanja, Žitište, Obrenovac -city of Belgrade, Čajetina, Crveni Krst, Pantelej, Niš, Ub, Nova Varoš, Žabalj, Mali Zvornik, Vladičin Han, Sjenica, Kula, Odžaci, Arilje                                                                                                                                          | 24 |
|                   | <b>Catalogue</b>     | Association for Renewable Energy Sources within the Secondary Technical School “Mihajlo Pupin” Pantelej, Odzaci, Cuprij, Aleksinac, Zabalj, Paracin, Vladicin Han, Zvezdara, Crvenka, Kula                                                                                                                                                                                              | 11 |
| <b>Slovenia</b>   | Surveyed online      | Raskrižje, Slovenj gradec, Pivka                                                                                                                                                                                                                                                                                                                                                        | 3  |
| <b>Turkey</b>     | Surveyed online      | Luleburgaz Municipalty, Osmangazi Municipality, Bursa/Yıldırım Municipality, Bursa/ Yenisehir Municipality, Istanbul/Arnavutköy Municipality, İstanbul/ Umraniye Municipality, Istanbul/Bagcilar Municipality, Lüleburgaz Belediye Başkanlığı,                                                                                                                                          | 8  |
| <b>Ukraine</b>    | Surveyed online      | Lviv                                                                                                                                                                                                                                                                                                                                                                                    | 1  |

The surveyed sample fairly represents local governments of various sizes (measured by population and number of employees in municipal administration).



The sample structure may lead to a conclusion that smaller municipalities are more responsive and, consequently, more interested in RE and EE. However, considering the fact that, Croatian local governments take a large portion of the sample, as well as the fact that only 32 cities in this country have the population of more than 35,000, it can be concluded that larger communities are equally, or even more interested in EE and RE than smaller ones. On the other hand, the overall analysis of the responses, as well as the field assessment in the three NALAS LAG countries proves that smaller LGs lack capacities and funding for such projects, as well as that larger LGs are more aware of and capable of implementing projects related to EE/RE sector. The issue remains how to reach and promote EE and RES use more effectively among smaller local governments, or to identify some other problems that prevent these local governments to be more active.

### 2.1.1 Demand and Supply for Investments/Partnership Projects with the Private Sector

Potentials for investments and partnership projects at the local level have been observed from the demand and supply side of both local governments and the private sector.

In order for investments to be attracted and partnerships to be established, local governments need to have certain tools and mechanisms in place. On one hand, they need to have a clear picture of what they need in terms of investments (what their demand is) and, on the other hand, what they have, need to do and provide, in order to attract investments (what they need to supply potential investors and private sector partners). The online survey and field visits were aimed at clarifying the local government demand and supply, by obtaining answers to a set of questions, related to typical business-friendliness criteria. This section of the study includes an overview of LGs of responses, including a set of general data on LGs investment/partnership potentials and needs, as well as those related to specific investments and partnerships in the area of EE and RE.

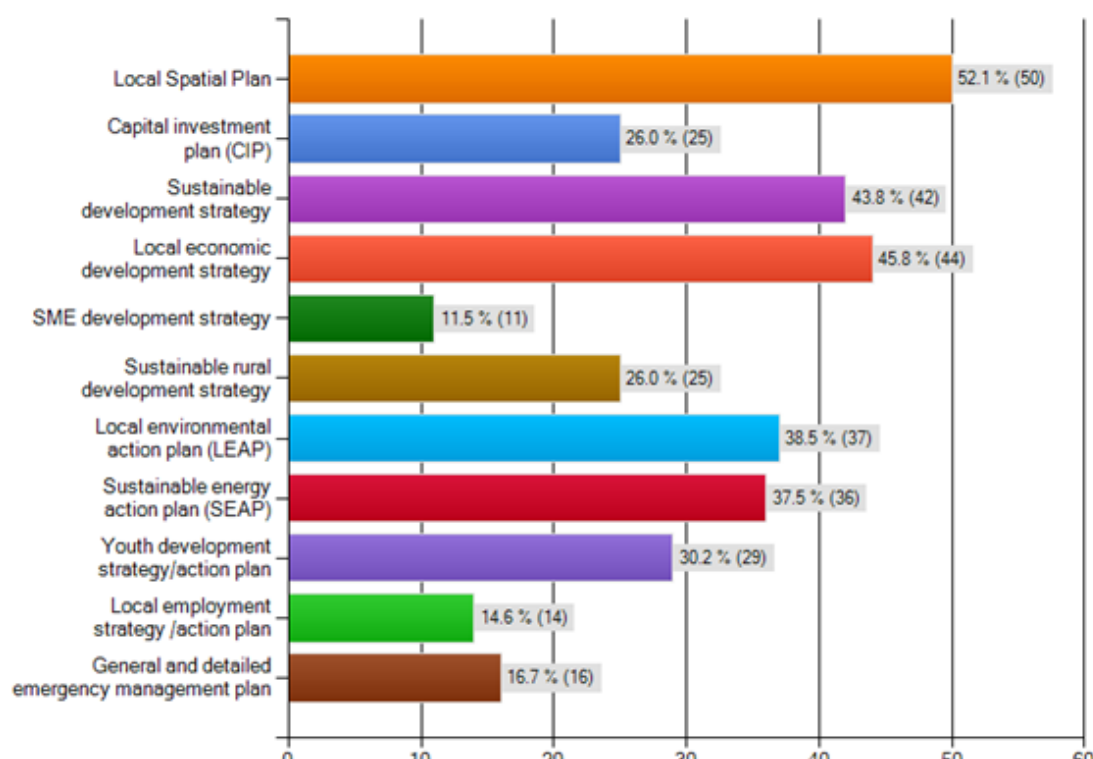
#### KEY LOCAL GOVERNMENT DEMAND/SUPPLY ISSUES ADDRESSED

- **What is the municipal demand for investments?** Are there clear policies and strategies? Does the LG have a clear picture of their community's resources and potential? Do they have updated databases? Have they managed to translate their resources, potentials, goals and objectives into clearly defined priorities, programmes and projects? What funding do they need? What potential sources of funding are accessible for them? What kinds of partnerships are needed?
- **What is their demand in the area of EE/RE?** Do LGs know what they need in the area of EE/RE? Have they clarified a strategic framework for EE/RE? Have they defined and prepared EE/RE projects that they need to attract investments for? What potential partners they are looking for in this area?

- **What can local governments supply potential investors with?** This includes a clear strategic framework, available investment locations, incentive policies, local economic development tools, planned projects, completed technical documentation, feasibility studies, cost-benefit analyses, available human resources and technical support that can be offered to investors, etc.
- **What can local governments supply potential investors with?** Do they have clearly defined strategies, plans, projects and prepared project documents for EE/RE? Do they have a clear picture of local firms that can be subcontracted by potential investors? If they opt for PPP, what would the LG's share be? In case of RE – what available locations and studies they can offer?

### *Strategic Framework*

The existence of local governments' strategic documents is a prerequisite for EU and other fund-raising, investment attraction and establishment of partnerships. On the demand side, it defines LGs long-term goals, objectives, priorities and needs. On the supply side, it helps the private sector plan their future business strategies and tailor their products and services to the local government market needs. The current framework in most SEE local government includes a variety of general-type and sector-specific strategies, which are, frequently, poorly coordinated with each other, prepared by different methodologies and not supported with adequate implementation plans, including a lack of viable action plans to support EE and RE projects. The following graph provides strategic plan statistics for the surveyed LG sample:



The survey indicates that the strategic framework for EE/RE implementation is not sufficiently developed. Only 36 (37.5%) of the respondents have reported that they have a Sustainable Energy Action Plan (SEAP) (mainly Croatian, Bulgarian and, to some extent, BiH LGs). The existence of SEAP is significantly related to the membership in the Covenant of Mayors, the extent to which national legislative and institutional frameworks for energy management have been developed and

supportive of EE/RE use at the local level and how much effort has been invested in various EE/RE awareness-raising campaigns. However, as it can be seen through the example of its 6 Serbian members, the membership in the Covenant of Mayors is not a guarantee that the commitment to adopt SEAP will be fulfilled within the agreed timeframe.

Almost all municipalities in Bulgaria and Croatia have a SEAP. In Serbia, it does not exist in any municipality yet. During the survey only three local governments were found to be in the process of SEAP preparation (the City of Belgrade, Vrbas and Temerin). As the members of the Covenant of Mayors, the latter two are pressed to complete the document as soon as possible and have managed to obtain donor funding for it. Currently, only 6 municipalities in Serbia are the Signatories of the Covenant of Mayors.

Some additional EE/RE-related strategic document forms have been identified: Municipal Energy Efficiency Program, Program for promoting the use of RE, Municipal Energy Efficiency Programme, Municipal program to promote the use of renewable energy sources and biofuels, Strategy for Sustainable Energy Development, Energy Efficiency Improvement Program and Green Agenda.

Surprisingly, only 42 (43.8%) LGs have a sustainable development strategy, which is a requirement for accessing EU-funding. Most respondents who do not have a SEAP have reported that they do have EE/RE projects planned within this strategic document.

Local governments' EE/RE projects are either included in general documents such as local spatial plan, sustainable development strategy and local economic development plan or in specific programs related to EE/RE sector. There is rarely a comprehensive approach that would provide integrated framework that fits local energy plan into overall local economic development strategy. Very low value of responses for developing a capital investment plan shows that there is a substantial mismatch between strategic considerations and planning of capital investments. An insight into randomly chosen strategic documents, has proved that many of the documents and programs are of formal character and do not transfer into real projects. This is not of much use for the private sector interested in investments or partnerships. Strategies need to be translated into EE/RE projects and documents, which can be presented to investors. NEXPO 2013 could be a good opportunity to provide some capacity building to LGs in this area.

Local spatial plans and geographic information systems (GIS) are also very important documents for successful capital investment project implementation, including EE/RE projects. However, only a half of the surveyed LGs (52%) have their own spatial plans (others rely on national and regional ones), or GIS (47.5%).

Based on the answers, we can conclude that only 15,8% of local governments (those with advanced GIS features) have an appropriate basis for developing EE/RE projects in a more systematic and comprehensive manner. This kind of spatial data is one of the necessary preconditions for attracting private sector investments. By having a spatial database on infrastructure and public lightning energy audits and procedures related to planning of energy programs are simplified and the process of investment preparation is fastened. This also presents a more efficient platform for general presentation of local government investment potentials.

### ***EE/RE Programmes and Projects Envisaged by LGs Strategies:***

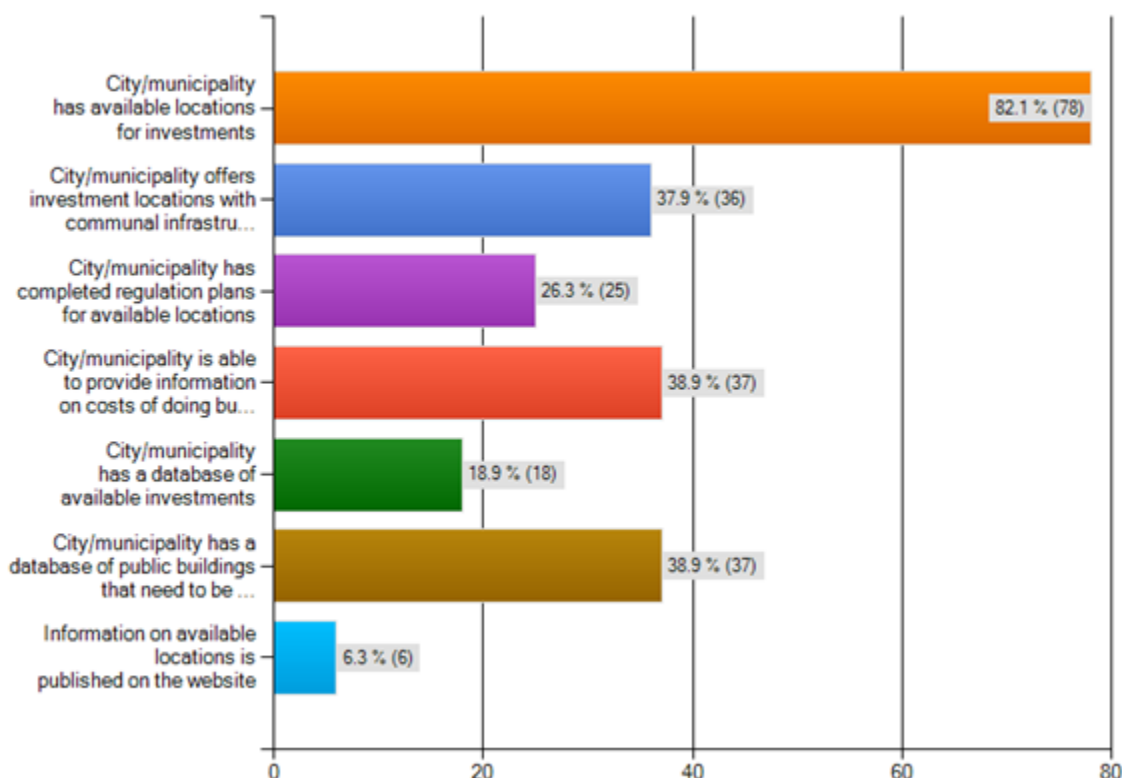
Municipal strategic documents emphasize three major EE/RE areas – EE in public buildings 85.4% (82 of 96 provided answers), public lightning (80.2%) and solar energy (62.5%). Another area of interest and high stake identified during the field visits is EE in public transport.

There are several key drivers for giving priority to public buildings, lighting and transport – pressure by the central governments to comply with EU standards; a high supply of donor (mainly EU) funds for EE in public building and lighting projects and, not less importantly, membership in the Covenant of Mayors (and LGs commitment to 20-20-20 goal). In these areas, the EU and national institutional and regulatory provisions are somewhat relaxed in order to give primacy to the utilization of EE/RE sources and attain the set goals. This kind of positive pressure is, naturally, reflected in the local development strategies and plans.

In Bulgaria, the visited LGs reported that different laws regulate technical requirements for EE/RE project implementation, but these documents are not harmonized and are often contradictory to each other. Bulgarian municipalities heavily rely on EU funds, particularly when it comes to EE in buildings and transport (public lighting is slightly less popular). However, this sometimes prevents them from taking their own initiative and from being efficient in project implementation.

In this study, emphasis is repeatedly put on the significance of membership in the Covenant of Mayors. Although the membership in it is voluntary, the assessment team feels that it is an important motivation factor and a mechanism of positive external pressure that needs to be deployed more systematically in the future. For example, since the City of Niš, Serbia, has not fulfilled its obligation to adopt SEAP, instead of terminating their membership, the Covenant of Mayors decided to provide an incentive, in order to move this member from a standstill – the Mayor has been appointed an Ambassador of the organization, with a “special task” assigned - to mobilize other Serbian municipalities to become its members. The task has been taken seriously, resulting in the establishment of the Serbian Covenant of Mayors’ Club and commitment of additional Serbian LGs to the “20-20-20 Goal”, at the meeting held in Niš, on April 17, 2013. This event is expected to become an important milestone in introducing more systematic energy efficiency action planning in Serbian municipalities.

### ***Available Locations for Investments:***



According to the respondents' feedback, most LGs have available locations for investments (82%). However, this number is significantly decreased when it comes to locations with available communal infrastructure (38%), completed regulation plans (26.3%), availability of database of investment locations (19%) and their public availability on the website (6.3%). 39% claim that they are able to provide information on the costs of doing business. However, the field visits and the assessment teams' previous study<sup>2</sup> results indicate that LGs do not always have common understanding on what available location for investment means. LGs frequently offer land with unsolved property issues, no regulation plans and with no primary or secondary infrastructure available. Furthermore, they are rarely able to provide full and accurate information on the costs of doing business, since these involve those regulated and provided by the national level public institutions.

One of the biggest drawbacks for investors is a lack of proper technical documents, as well as accurate and accessible data necessary for a preliminary evaluation of investment location. A significant part of NEXPO 2013 should be dedicated to capacity building and presentation of municipal best practices in location databases and marketing. It is recommended that NALAS provides guidelines to municipalities on what to present at the fair and how to prepare successful presentations of investment locations.

Almost 39% of the respondents claim that they have available database of public buildings that need to be refurbished.

<sup>2</sup> Since 2005, DCG has completed several baseline and needs assessment studies of municipal LED capacity in Serbia and BiH, including a sample of over 80 LGs (funded by USAID and GIZ).

It would be quite interesting for LGs to use NEXPO 2013 as an opportunity to exchange experience and brainstorm on what elements need to be contained in such a database.

### ***Incentives Offered to Investors in EE/RE Projects***

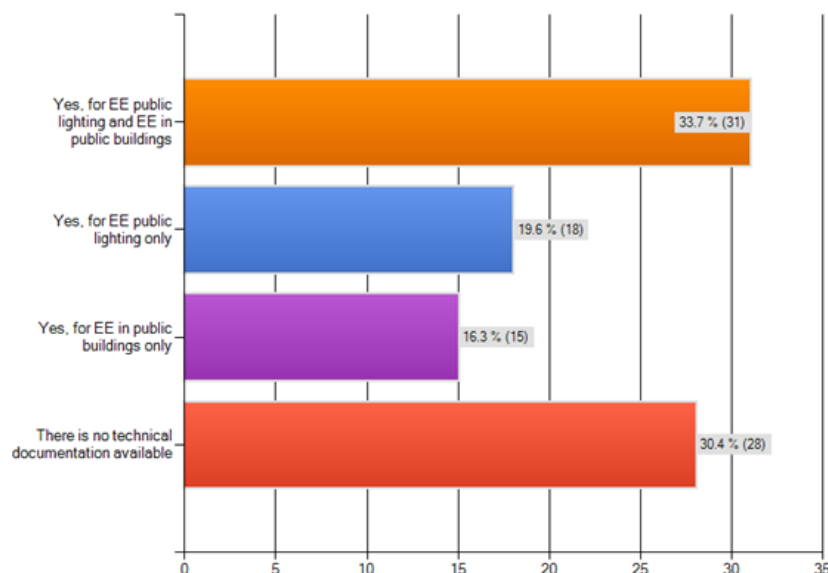
The answers suggest that the top three incentives LGs are ready to offer to investors at the moment are non-financial ones: 57% of the respondents provide technical assistance to investors, provision of quicker building and permitting process for EE projects (34.5%) and RE projects (27.4%), while 28.6% state that they can provide workforce development services.

Other incentives include tax rebates (22.6 %), grants (direct payment subsidies (28.6%), energy audits are provided (21.4%), voluntary labeling programs (green building, energy star, zero energy, etc.), preferred treatment by government procurement (6%) and mandatory disclosure programmes (10.7%). The City of Bar has issued a Decision on Utility Equipment in the Capital City, by which the compensation fee is reduced by the amount of 150.00 € per 1 m<sup>2</sup> of solar collector installed.

Other, tailored support provided to investors includes provision of land (57.5%), infrastructure (57.5%), services per requested (50.6%), human resources (63.2%) and facilities (31%).

According to the survey, local governments provide a range of services to investors. It is quite surprising that so many local governments report that they provide technical assistance with EE/RE projects. This is somewhat contradictory to the assessed level of municipal energy management and local economic development capacity. Local governments in most of the assessed countries do not have many possibilities for giving significant incentives for EE/RE projects financially, due to the fact that the level of centralization in the region is still very high and incentives and tax holidays are defined at the national level. There is some space for incentives when it comes to charges and fees related to communal property (or property tax). To some extent, the survey indicates more lenient incentive procedures, regulations and administrative procedure for EE/RE projects.

### ***Availability of Technical Documents:***



As the graph on the left shows, approximately one third of the 92 local governments which responded to this question (11 skipped it) admit that they have no technical documents prepared for the planned projects. This partly explains their low feedback in providing input for the Catalogue of Municipal Projects. There are no country specific answers - positive answers come from all surveyed countries, which indicates that the availability of technical documents is more dependent on the LG leadership and project management

capacities and skills.

If we look at the type of listed documents in the online survey and the documents presented in the field, it looks that LGs' understanding of what a "prepared study" means differs among answers. Types of technical documents available in surveyed municipalities include:

- Feasibility study for construction of the Biomass Power Plant in progress.
- Project documents for district heating (installment of heat cost allocators and regulating valves)
- Energy audit of public buildings that is a base for technical documentation for EE projects
- Technical documentation for water ram
- We are in the phase of preparation the technical documentation
- For six projects for Kozlodui, for Street Lighting, for City Transport - these are ready for implementation and we expect the investor to prepare technical documentation for geothermal project.
- Feasibility study of hydro-potential use.
- Feasibility study of biomass use potentials for 3 municipalities (inter-municipal cooperation).

Availability of technical documents is a prerequisite for investment attraction and private-public partnerships. In combination with a poor supply of locations, limited knowledge of English language and a lack of specific EE/RE strategies and action plans, LGs capacities for investment attraction seem to be significantly decreased. On the other hand, feedback from field visits and increased orientation towards EE/RE projects indicates that this is an emerging factor [across](#) local governments in NALAS region that in the forthcoming years we can expect substantial improvements in the quality of technical documents provided.

### **2.1.2 Local Government Capacity to Support Investments in the Area of EE/RE**

#### ***Local Regulatory Framework for EE/RE***

Only 10% of the local governments report having a solid regulatory framework for EE and RE in place, whereas as many as 65.6% admit that they have no local regulatory framework at all.

The procedures and framework necessary for the implementation of EE/RE projects are still not clear in many countries, even at the national level, but they are increasingly under development. There are some countries where local energy frameworks (concepts) are mandatory (Slovenia). However, in general, there is a lack of understanding of institutional and regulatory procedures in EE/RE sector among local governments.

The following are the examples of local regulations available in some local government:

- Decision on the Appointment of Energy Council and Energy Manager from 2010
- Rulebook on Energy Efficiency
- The Reference Book on Legislative Framework on Energy Efficiency Methodology and Questionnaire for Data Collecting
- Energy Efficiency Improvement Program for the period 2013-2015

## ***Energy Management Capacities***

Local governments increasingly recognize that the energy management is an important local government function; however, there is still a lack of notion that local government needs to have energy manager/department which can interact on equal basis with the business sector.

Low energy management (EM) capacities have been confirmed by the online survey results and the field visits to three countries. It is somehow discouraging to find out that the significance of energy management has not been fully acknowledged and that the scope of work of energy management is not clear yet, in most of the SEE countries. Only 21% of the respondent LGs confirm that they have a fully institutionalized energy manager (1 person), or an energy management unit. The majority of surveyed local governments have added energy management to an existing job description (57.8%).

In Bulgaria, EM is most frequently within the Unit or Directorate or Environmental Protection or Infrastructure Development which is a model that seems to work better than others.

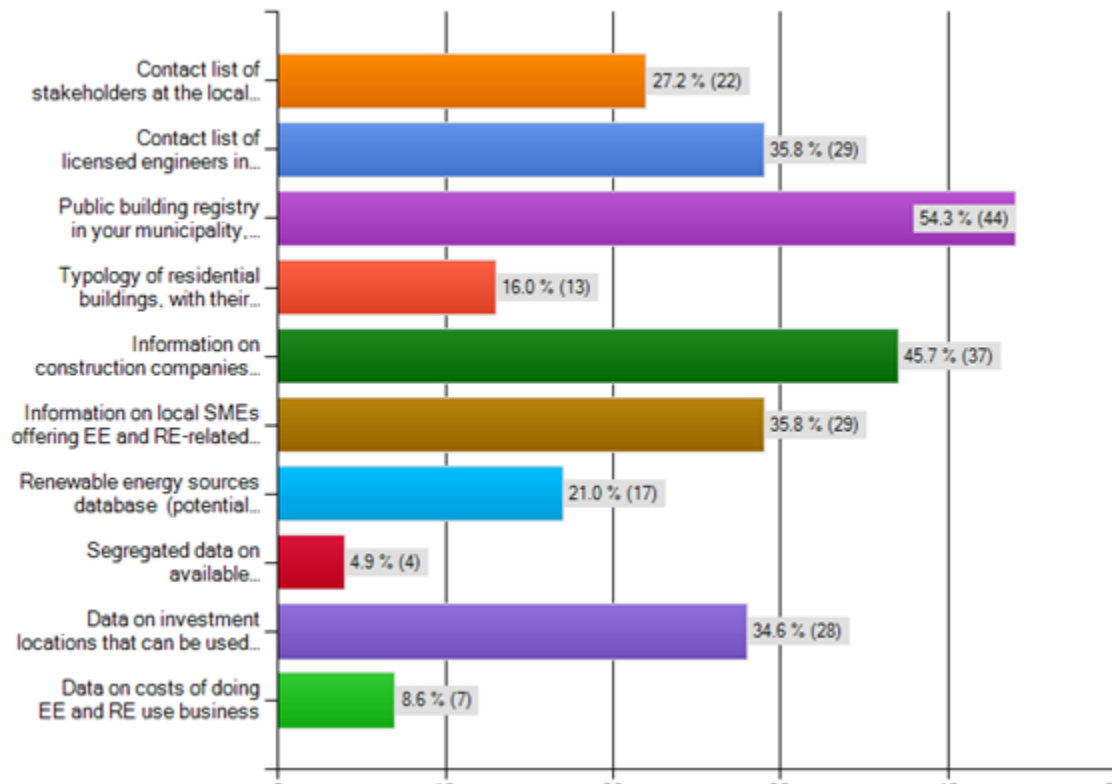
In addition, local or regional Energy Management Agencies seem to be very active and cooperative with local governments. They provide a range of services to LGs, from expert assistance in energy calculation and project preparation, to soft support, like training or awareness-raising activities. In Serbia, there is an ongoing debate on whether energy managers need to be engineers, or people of more general educational background, with management skills necessary to communicate with licensed engineers and get the necessary feedback from them on energy consumption, energy audits of buildings, keep contacts and communicate with EE/RE institutions at various levels, raise funds, lead negotiations with investors in the area of EE/RE, etc. The field visits revealed that, formally, EM exists in some 40-50 municipalities, but these are technical persons – mechanical or electrical engineers, employed on temporary basis, or volunteers. It was difficult to access them and, moreover, in several municipalities, the officials were not able to provide contact details of their EM. In Croatia, EM is being established. Standing bodies for EM (councils, committees or similar) are rarely established or, even if they exist, are not fully functional. Interestingly, in 6 municipalities, EM is shared between two or more cities/municipalities.

The Standing Conference of Cities and Municipalities, in cooperation with GIZ-funded project *Energy Efficiency in Buildings* is currently doing an assessment of energy management and SEAP preparation status in 30 Serbian municipalities.

A NEXPO 2013 forum for discussing energy management, exchanging experience and best practices is highly recommended. This would be particularly helpful to those LGs who are now in the process of establishing an energy management function. A workshop on energy management that would result with the specific guidelines and clarification of the scope of work would be very beneficial.

## ***Energy Management Databases***

The majority of data stored in energy management database of local government refers to a registry of public buildings (54.3%) and in somewhat lesser extent to information on local construction companies and EE/RE sector SMEs. However, there is no detailed data that would enable a perspective on more specific projects and their implementation (types of potential projects, detailed infrastructure data etc.). Unfortunately, there is still a lack of basic data for conducting energy audits and energy programmes.



The City of Bar, Montenegro, has an information system for energy management which, among other data, contains data about energy consumption of all public buildings and public facilities in the City for the past five years. This information system is used by the Municipal Energy Management Team in order to monitor, analyze and control energy consumption in public buildings and facilities.

The workshop on energy management, suggested above, should also deal with the EM database contents, including the roles and responsibilities for its maintenance, analysis and use. One important aspect to consider is data sources and the availability of data from the national level.

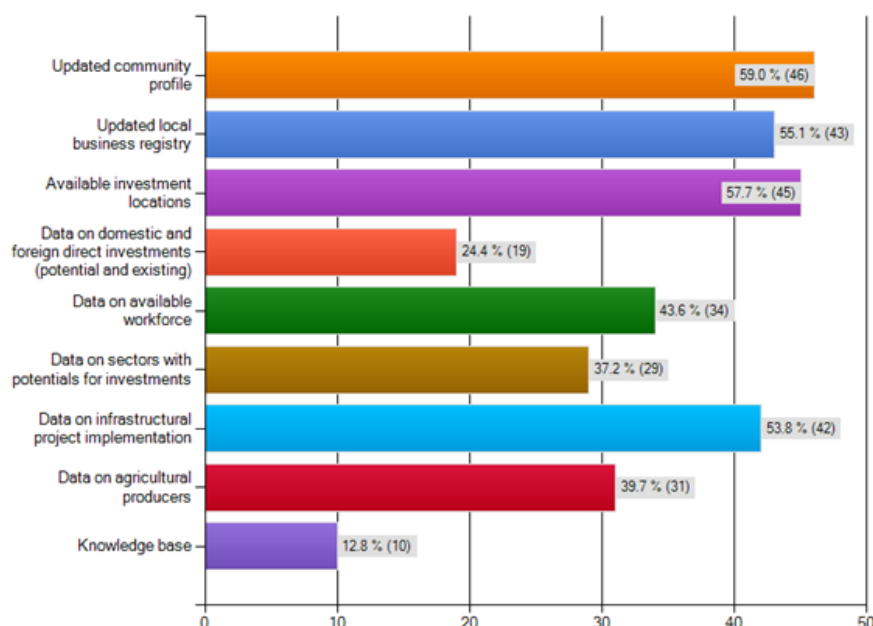
### ***Institutionalization of Local Economic Development Function***

Local economic development offices (LED) have mushroomed in most of the SEE countries in the past five years. Similar institutional models have been promoted by donors (primarily USAID) in Bulgaria, Macedonia, Serbia, Romania, etc. Several key functions of LED offices have been distinguished, investment location database management, investment attraction, support to the private sector and monitoring of strategy/project implementation being the central ones. It is expected that LED offices and EM closely cooperate and coordinate on creating a business-friendly environment for EE/RE growth.

63% of the surveyed cities and municipalities have an institutionalized local economic development (LED) function. 12% perform this function within some other department and it is not addressed systematically. Surprisingly, 16.3% of the LGs do not consider LED to be within their scope of work.

Furthermore, the proposed workshop on energy management should cover models of cooperation of LED and EM offices, as well as the necessary support from other municipal departments in the process of investment attraction in the area of EE/RE.

### LED Databases



The status of LED data bases is not encouraging. Only one half of the surveyed municipalities have an updated community profile, data on available investment locations, updated business registry or systematic data on infrastructural project implementation. Such data are a basis for business friendliness, and economic growth and are crucial for EE and RE projects, as well. The situation in the field is even worse than shown in the online survey – in

many LGs updates are not done regularly and some key data are missing. Also, there is a low level of awareness of potential uses of good LED databases and the advantages they bring in attracting investments.

### 2.1.3 Upcoming Municipal Projects in the Area of Energy Efficiency and Renewable Energy Use

The ranking of projects in the pipeline corresponds to the strategic framework:

| Projects in Preparation       | %     | # of Answers |
|-------------------------------|-------|--------------|
| EE in public buildings        | 80,2% | 77           |
| Public lighting               | 67,7% | 65           |
| Biomass use                   | 22,9% | 22           |
| Pellet use                    | 26,0% | 25           |
| Solar energy use              | 51,0% | 49           |
| Use of hydro-potentials       | 12,5% | 12           |
| Use of geo-thermal potentials | 10,4% | 10           |
| Wind energy use               | 12,5% | 12           |
| <i>Sample: 96 LGs</i>         |       |              |

**Examples of EE projects  
presented by local governments:**

**EE in Buildings:**

- Refurbishment and maintenance of facilities of public enterprises and other public institutions
- Refurbishment of kindergartens and schools
- Introduction of EE Measures
- Energy Assessment / Audit

**Street lighting:**

- Reconstruction of street lighting in the municipality
- LED lighting
- Intelligent Street Lighting in Varna
- Development of one solar park with energy storage which would provide energy for public lighting

In line with the previous findings, as well as with the EU Directives, energy efficiency in buildings is seen as a priority. According to the answers to online survey, typical EE projects in buildings include refurbishments of municipal public buildings, kindergartens, schools, health facilities, etc. This was, also, confirmed in the field, in all three in-depth surveyed countries (Croatia, Bulgaria and Serbia). In Serbia, some of the earliest EE projects were implemented on school buildings. While in Bulgaria and Croatia the legislative framework for EE in buildings is more or less complete and clear, in Serbia, it is still being created. The Law on Rational Use of Energy has just been adopted. Last year, two rulebooks were adopted - on EE in Buildings and Energy Performance Certification (EPC); however, there is a general recognition that these two documents have significant failures that need to be revised. GIZ-funded project *Energy Efficiency in Buildings* has supported energy assessment and pilot issuance of the first 150 EPCs (energy passports).

In Bulgaria, EE projects at the local level predominantly include refurbishment of old buildings and improvements of public lighting, which is directly related to available

funding (EU Intelligent Europe, Kozloduj Fund, state incentives, EE/RE Fund facility). All new buildings are being constructed in accordance with the Energy Performance Building Directive (EPBD). Croatia has some best practice example in this area, such as the construction of energy efficient social housing (e.g., Croatian “Green Buildings” project, provided at the end of this report as a best practice example). Serbia and Bulgaria are also involved in the EU TABULA<sup>3</sup> Project, which involves 13 members and two associated partners (as non-EU member country, Serbia is an associated partner).

It is recommended that NEXPO 2013 dedicates some time and space to the presentation of such innovative approaches to EE in buildings.

All surveyed countries have very good natural potential for energy production from RES. The efficiency of RE project implementation, however, is mainly dictated by the extent to which their regulatory framework at the national level is favourable to such investments. In Croatia, there is a high number of applications for gaining the status of an eligible producer and companies active in the field of RE demonstrate the economic potential and interest in the development of RE in this country. The legislative framework is in place and strategic targets are set. Croatia had positive experiences in the last year with RE supporting schemes, RE installations and setting up a progressive framework for fostering RE development industry and no coal production, and thus, path dependency is less strong than in countries with a big coal industry branch. Despite the high potential, the share of new RE in energy production is still staying marginal and up to now, only few RE plants have been built. The policy instrumentation mix, although improved during 2012, still represents a big obstacle in its implementation on the field. Therefore, new regulatory amendments have been prepared in early 2013, which should eliminate the difficult and time-consuming

<sup>3</sup> *Typology Assessment of Building Stock EE*. For more information on the TABULA project, please, refer to [www.tabula.eu](http://www.tabula.eu)

procedure – at the moment, a number of different institutions are involved and there is no unified procedure when it comes to the building of RE facilities. Another serious problem is the unresolved legal ownership of land, where in many cases, it is not clear who owns the land. The Croatian state is still very centralized, the local governments are characterized as often not willing to cooperate, what might also hinder the development of RE as local initiatives and capacity to deal with RE projects are missing. Also, the cooperation between the private and the public sector is weak.

Solar energy is very popular in all surveyed countries and the field visits confirmed this finding. There is a great demand for solar panels/photovoltaic cells and the private sector seems to be responding to the needs appropriately. However, no examples of PPP have been identified in this area. Solar panels are usually installed on private land, in direct negotiation with owners. In case of larger solar plants, they are usually installed on private land, or in case municipal land is sought, LG's role is confined to sole land provision for the investment.

Although biomass and pellet use projects, are less represented in the surveyed sample (23 and 26%, respectively), during the field visits, a number of municipalities expressed their plans to initiate biomass and pellet project use. For example, the Association of Bulgarian Energy Agencies (ABEA) in Plovdiv is a great promoter of these RE sources and is currently involved in a couple of projects.

The new Serbian Energy Law is only partly in line with the Renewable Energy Sources Directive. The main part of the framework for the promotion of renewable energy will be defined at the level of subsequent by-laws. Therefore, the development of the Serbian regulatory system for renewable energy will require continuous monitoring to ensure compliance with the EU acquis. In the framework of the Energy Community, Serbia has a binding target of 27% of renewable energy in final energy consumption by 2020. Renewable energy projects are only starting to find their way in Serbia – mainly the use of hydro potentials and solar energy. Serbia is now at the phase of establishment of the wind energy market – a couple of projects are currently at the initial stage (in Vrbas and Kovin). A significant amount of lobbying is currently going on for the improvement of wind energy-related legislation. KfW currently promotes biomass use through one of their projects.

Serbian government currently supports the construction of mini-hydro energy plants, which accounts for an increased amount of interest in this RES type. A public call for 317 grants was closed on April 5, with 1,380 received applications. The construction works are planned to be completed by 2016. The Governments requires that all electricity produced through these projects enters Serbian energy balance, to contribute to the goal of reaching a 27% increase in RE consumption by the year 2020.

Use of geo-thermal potentials is considered, but still in the domain of vague plans. The municipalities lack feasibility studies and specific data necessary to initiate such projects.

**EE/RE Projects Payback Period:** the maximum acceptable pay back period is 5-10 years.

### ***Soft Projects;***

Not less important are the soft projects aimed at citizen awareness-raising about energy savings, EE and RE use. According to the interviewees from several regional agencies, EE networks and associations in Bulgaria<sup>4</sup>, although there are numerous initiatives, the level of EE awareness is still very low, requiring a more aggressive campaign and educational events for citizens. In Croatia, a

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<sup>4</sup> Detailed list provided as an annex to this report.

number of such projects are going on, supported by the national level. Typical awareness-raising projects include activities aimed at different target groups, from general campaigns for citizens on electronic media, to targeted campaigns and educational events for small children, young people, family house owners, etc., aimed at changing their behaviour and adopting new, EE standards of living. Croatian examples include the Info Days<sup>5</sup>, organized by the Croatian Association of Cities, Green Week in the City of Zagreb, etc. In Serbia, German Agency for Development Cooperation (GIZ) is currently supporting a *Discovering Energy* initiative in 30 cities and municipalities, within its project Energy Efficiency in Buildings. The initiative includes an awareness-raising campaign for private house owners at the local level, an exhibition of day and night (thermo visualized) photos of local buildings in the municipal hall, to illustrate energy wasting, pilot assessment of thermal characteristics in buildings and issuance of the first 150 “energy passports”. A key message to be conveyed is that local government is fully in charge of reducing energy consumption and CO<sub>2</sub> emission at the community level and thus, should not only care for EE in public buildings – citizens should actively participate and be involved in activities, as well.

The role of civil society organisations’ (CSO) projects in raising-awareness should not be neglected, either. Several examples of best practices involving CSO’s initiatives are provided in this report.

It is recommended that NEXPO 2013 hosts at least one event (open space, workshop, focus group discussion) on awareness-raising and ensuring CSO and citizen participation in EE/RE area).

### Sources and Models of Funding

| Source of Funding        | %     | # of LGs  | Models of Funding                                    | %     | # of LGs  |
|--------------------------|-------|-----------|------------------------------------------------------|-------|-----------|
| Central government funds | 75,0% | 60        | 100% from central government                         | 7,9%  | 7         |
| EU-funding               | 57,5% | 46        | 100% from regional government                        | 3,4%  | 3         |
| Commercial loans         | 11,3% | 9         | 100% from local government                           | 21,3% | 19        |
| Development loans        | 17,5% | 14        | Co-financing: LG and other governmental institutions | 52,8% | 47        |
| Private sector           | 25,0% | 20        | Co-financing: LG and private sector                  | 19,1% | 17        |
| <b>Sample</b>            |       | <b>80</b> | Co-financing: LG and donor funds                     | 40,4% | 36        |
|                          |       |           | <b>Sample</b>                                        |       | <b>80</b> |

At the moment, most of the EE projects are subsidized either by the national government (usually environmental funds) or EU funds. The reason is that local governments do not have sufficient funds for such projects on their own, the ESCO market is still underdeveloped and the ratio between savings and investment costs is still rather high in order to have a more developed market. The majority of EE/RE investments are based on co-financing of local government and usually this amounts to about 25% of the total investment costs.

As an EU-member country, Bulgaria, and now Croatia, have access to a number of EU-funding facilities, including *Intelligent Energy Europe* (apart from the EU-member states, Croatia and Macedonia are also eligible). The ELENA facility (European Local Energy Assistance) is provided within the framework of the IEE II programme (Intelligent Energy Europe) and supports local and regional authorities in contributing to the “20-20-20” initiative. The new KfW-ELENA facility offers a

<sup>5</sup> Presented in the section of best practices, at the end of this report.

complementary approach in order to mobilize sustainable investments of small and medium sized municipalities and, where appropriate, Energy Service Companies (ESCOs). KfW-ELENA consists of three innovative and complementary financing schemes. Bulgarian LGs also use the International *Kozlodui Fund* and the National Eco-Fund.

In Croatia, the Fund for Environmental Protection and Energy Efficiency (FZOEU) was established in 2004, with an aim to finance investments by private persons and local authorities, primarily through long-term “soft” loans and grants in EE and RE. The Fund has significant amount of money that could trigger RE and EE development. But the problem for years was that the majority of its means has been going to waste management and not to RE and EE development. At the end of 2012 Fund has announced that it will subsidize RE and EE projects in 2013 with amount of more than 12 million euro. However, the administrative hurdles for getting money from the Fund are high. Similarly problematic, the Fund does not provide money for individuals. It has, so far, provided financial aid to legal persons only, which again creates a big obstacle for small projects and private initiatives. Financial market is also developing very slowly, commercial banks have not yet developed specific loan facilities for RE and EE. The Fund is supposed to pay 2 percent interest on commercial loans but it has been reported that banks are not accepting the Fund’s subsidy. No use of fiscal policy is made and there are no tax exemptions for the RE and EE projects.

During the field visits, EE/RE project funding was one of the most explored topics. Presentation of various sources of funding should be one of the central topics at NEXPO 2013. The presentations should include both facilities through which EE/RE projects are funded and various donors for the provision of technical assistance.

Particular attention should also be paid to those funding sources which are accessible to the private sector, for example, the FP7.

Municipalities should be given space to present their experience with successful funding models.

Local governments’ capacity to prepare project proposals is a significant impediment to accessing funds. Some LGs successfully rely on external capacities for project preparation. One such example is the cooperation of Bulgarian LGs with the Black Sea Regional Agency for Energy Management (BSRAEM) and the Association of Bulgarian Energy Agency (ABEA) and which have an excellent track record of successful projects<sup>6</sup>. These organisations have experience with accessing the EU FP7 facility, as well.

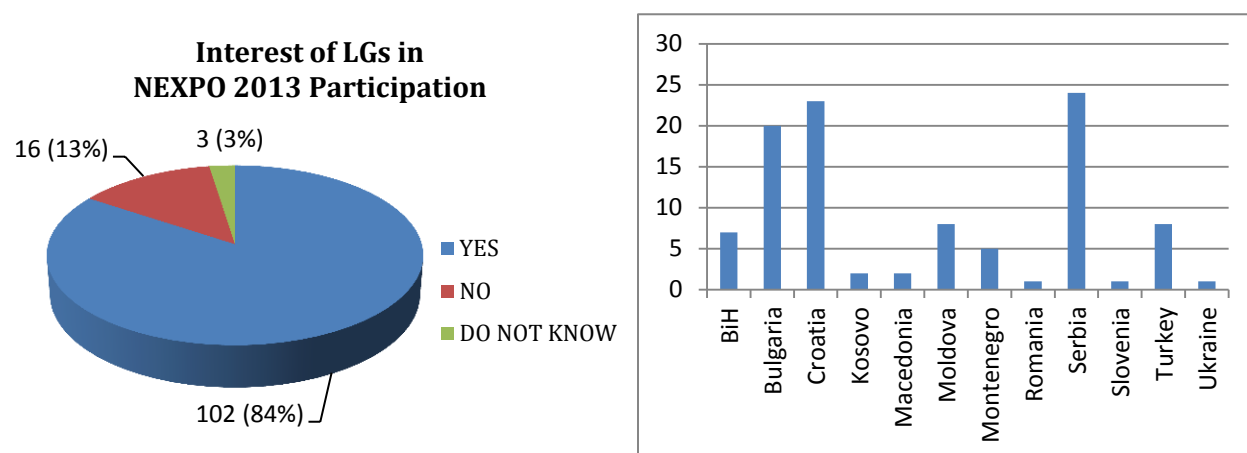
It is recommended that these two Agencies present their experiences to NEXPO 2013 participants in a workshop setting, which would allow interaction and demonstration of successful projects.

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<sup>6</sup> Contacts are provided as an Annex to this report.

## 2.1.4 Participation of Local Governments in NEXPO 2013

### 2.1.4.1 Interest of Local Governments in NEXPO 2013 Participation



The statistics is based on 121 responses (103 – online survey + 18 visited LGs which did not complete the survey). The distribution of answers corresponds to the number of surveyed municipalities per country – most of the positive answers come from Bulgaria, Croatia and Serbia – the countries which were included in the field assessment. These countries have also had an opportunity to be informed about NEXPO and its benefits in greater detail. For example, in Croatia 25 out of 27 surveyed LGs confirmed that they would participate in NEXPO 2013. The complete list of surveyed municipalities, provided in Annex 7 includes information about each separate LGs interest in participation.

The most common reason for a negative answer is a lack of funding, or inability to make a decision at the time of the survey.

The promotional campaign for NEXPO has to be ongoing. Marketing for NEXPO 2015 has to start at NEXPO 2013, this September. The campaign may need to be different for smaller and larger local governments.

Only 12.7% LGs (13 out of 102 respondents) participated in NEXPO 2011. The survey shows a significant increase of interest for NEXPO 2013. The qualitative comments of previous NEXPO participants indicate a high level of satisfaction with the previous event. NALAS' ability to absorb the lessons learned from the previous Fair, also account for the increased interest in participation.

46.5% respondents are interested in booking a booth at NEXPO 2013, while 53.5% state that they will not decide for that option (sample: 99 responses), for the following reasons:

- No projects prepared for presentation at NEXPO (4)
- Joint booth presentation with other municipalities, ("We will be sharing a booth with municipalities of Tešanj and Teslić, Union of Montenegrin municipalities will have one common booth – 2 answers, Moldovan municipalities will share booths, 5 municipalities of the City of Niš will share 1-2 booths") (5)
- Budget limitations/lack of financial resources (4)
- Too high costs of NEXPO
- Only mayor and the head of department will come to NEXPO. Booking a booth would imply engagement of more people and higher cost.

- Lack of experience and presentation skills 1,1
- We cannot decide at this moment. The decision needs to be made at a higher level.
- Cannot make a decision about booking a booth at this moment.
- We prefer to present our plans in direct contact with investors
- We prefer to participate first as a guest and to be more prepared for potential booking in next year.

Although there is a significant interest of local governments to participate in NEXPO 2013, only less than a half of them are capable of booking a booth, due to financial constraints and their own, self-critical understanding that they do not have either the presentation skills, or any relevant projects to present. Several LGs are planning to take a booth with neighboring municipalities, or be represented at the Local Governments Association's or Regional Development Agency (RDA) booth. None of the municipalities have considered a possibility to be presented together with their local private sector.

Therefore, it seems that the concept of NEXPO 2013 mainly suits larger cities and municipalities. In order to ensure participation of smaller local governments, there has to be some funding, or leverage provided either from the national level, or international sources. Smaller municipalities should be encouraged to partner for taking a joint booth with neighbouring municipalities or regional development agencies.

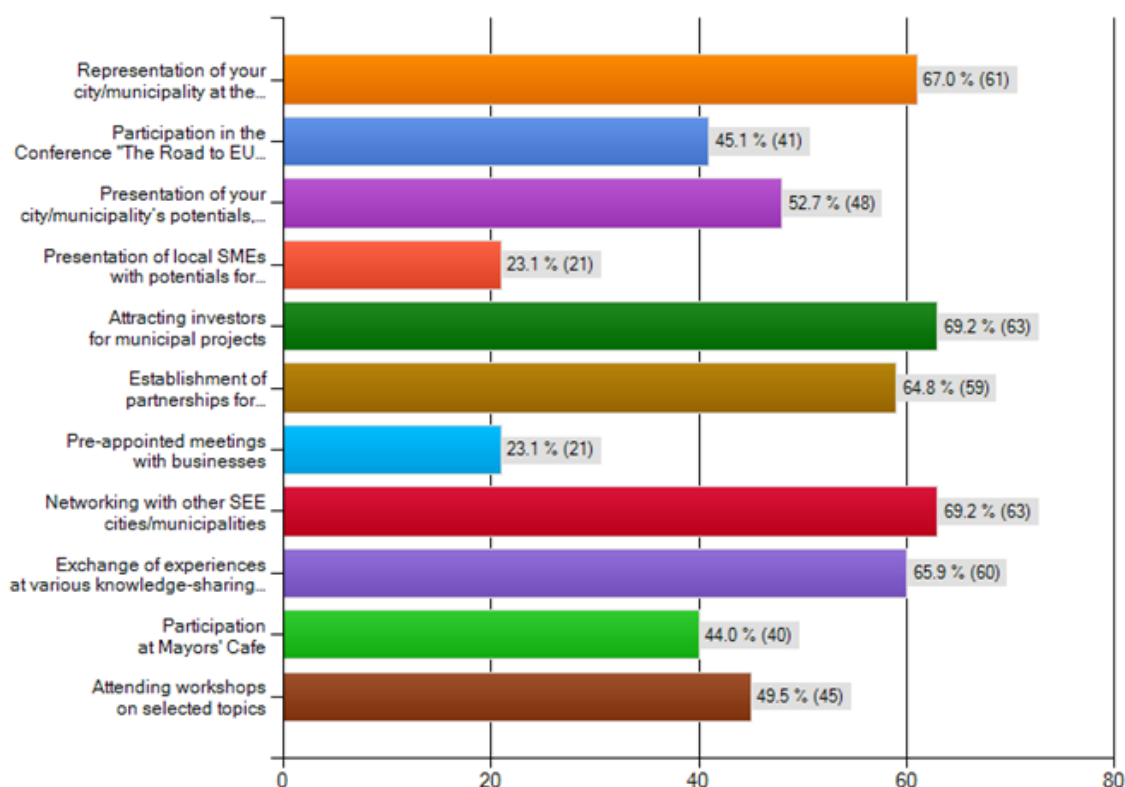
Only 43% of the respondent LGs expressed interest to present their EE/RE projects in the NEXPO 2013 Catalogue. Even less (33% of the total number of surveyed municipalities) have sent their actual input for the Catalogue, and these are mainly local governments from the 3 in-depth assessed countries.

The reasons for low responsiveness lie mainly in the fact that the surveyed local governments do not have well-planned and prepared EE/RE projects. Poor knowledge of English language and a lack of motivation are also observed as obstacles.

We recommend NALAS to leave the online survey open for another 2 months. In the meantime, the Associations should send another letter to the LGs, this time with the link to NEXPO 2013, where they can find information on the costs of participation. Many local governments could not provide any detailed feedback on participation before discussing the costs with their municipal leadership.

### 2.1.4.2 NEXPO 2013 Activities

The following graph presents LGs' preferred activities at NEXPO 2013:



#### The top five activities of local governments' interest:

- Attracting investors for municipal projects (69.2%)
- Networking with other SEE cities and municipalities (69.2%)
- General representation of the city/municipality at the Fair (67%)
- Exchange of experience at various knowledge sharing platforms (65.9%)
- Establishment of partnerships for projects (64.8%)

With the exception of their desire to attract investments, it seems that the interests of LGs' are mostly general and related to presentation of their potentials, networking with other local governments and exchange of best practices. In order to better structure the Fair, NALAS should consider providing clear guidelines for municipal presentations, focused networking events, well-presented best practice examples (through public presentations, workshops and in printed form) and, above all, guidelines for presentation of investment potential and investment attraction. A workshop on marketing for investment attraction may also be considered.

## **Additional suggestions by local governments for NEXPO 2013 activities:**

### **Investment attraction:**

- More direct contacts with potential investors,
- Meetings with potential investors in EE and RE projects and other areas (3
- Round tables with business sector representatives,
- Focus groups to discuss topics relevant municipal activities (infrastructure, tourism, agriculture),
- Round table with private investors who would participate with local government on improvement of communal infrastructure (for example, EE in public lighting - ESCO model),
- Development of Guidelines for the municipality to attract potential investors,
- Presentation of municipal greenfield and brownfield locations.

### **Access to sources of funding:**

- Meetings with donors and other potential sources of funding,
- Meetings with donors in EE/RE one to one.
- Possibilities for financing projects.
- Access to EU funding.
- Meetings with donors in specific areas (e.g., water supply and sanitation and sustainable tourism).

### **Exchange of experience:**

- Presentation of good practice examples,
- Exchange of experiences at various knowledge-sharing events (round tables, open space, forums, focus groups, etc.),
- Exchange of experiences between municipalities and businesses; possibilities of common representing several (two or three) municipalities with similar problems and goals,
- Training in energy efficiency project preparation and implementation.

### **EE/RE project presentation:**

- Presentation of local renewable energy sources (2)
- Presentation of EE municipal projects,
- Presentation of best practice projects in EE and RE in SEE countries (3)
- Presentation of EE projects at the County level (insulation, wind potentials, business zones),
- Presentation of best products in the area of EE.
- Presentation of ESCO model.

### **Knowledge sharing, exchange of experiences:**

- The NEXPO should more seminars for EE and RE in rural areas.
- Interactive workshops (2)
- Exchange of experience and cooperation with municipalities that have taken the first steps in EE and RE,
- Study visits to Croatian municipalities
- Debates about the future of public transport.
- We suggest more interactive workshops on topics of European integration, energy efficiency projects at local and national level to be organized where the experiences and knowledge can be exchanged in an efficient manner.

### Networking, LG2LG partnerships and awareness-raising:

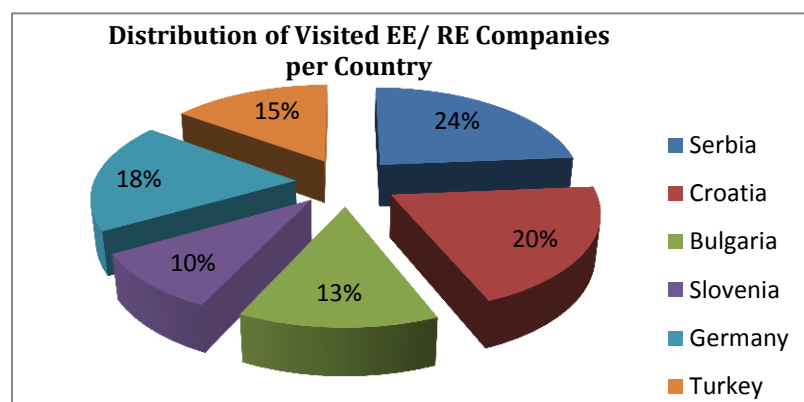
- Organizing event related with Covenant of Mayors. Event could be another push for launching regional Covenant of Mayors office in SEE,
- Joint meetings with other mayors who have signed the Covenant of Mayors,
- Partnering municipalities in neighboring countries for municipal projects,
- Provide new networking solutions, expand networks with other local governments (2)

### Other areas of interest (non EE/RE):

- Including a presentation of traditional cultural values.
- Matchmaking opportunity in sustainable Tourism.
- Some activities in the field of environmental protection.

A general and vague nature of additional suggestions indicates that there is a whole scale of EE/RE issues which is unknown for local governments. This requires a careful approach in the selection of topics to be presented, as well as the presentation models that will work best at the Fair setting.

## 2.2 The Private Sector



Compared to the LG survey, the private sector's responses are more representative, in terms of the sample size. NALAS needs to bear in mind that the private sector was contacted directly by DCG/ESCO, so the assessment team can be held more accountable for the obtained number of answers, than for the LGs, which were reached through their national associations.

|                                      |     |
|--------------------------------------|-----|
| Countries surveyed online            | 6   |
| EE/RE companies surveyed online      | 72  |
| In-depth assessed countries          | 6   |
| Companies visited in the field       | 110 |
| Companies presented in the Catalogue | 52  |

A total of 114 companies were covered, including 72 which have completed the online survey. EE/RE companies from all 6 countries responded to the survey, to a varying extent

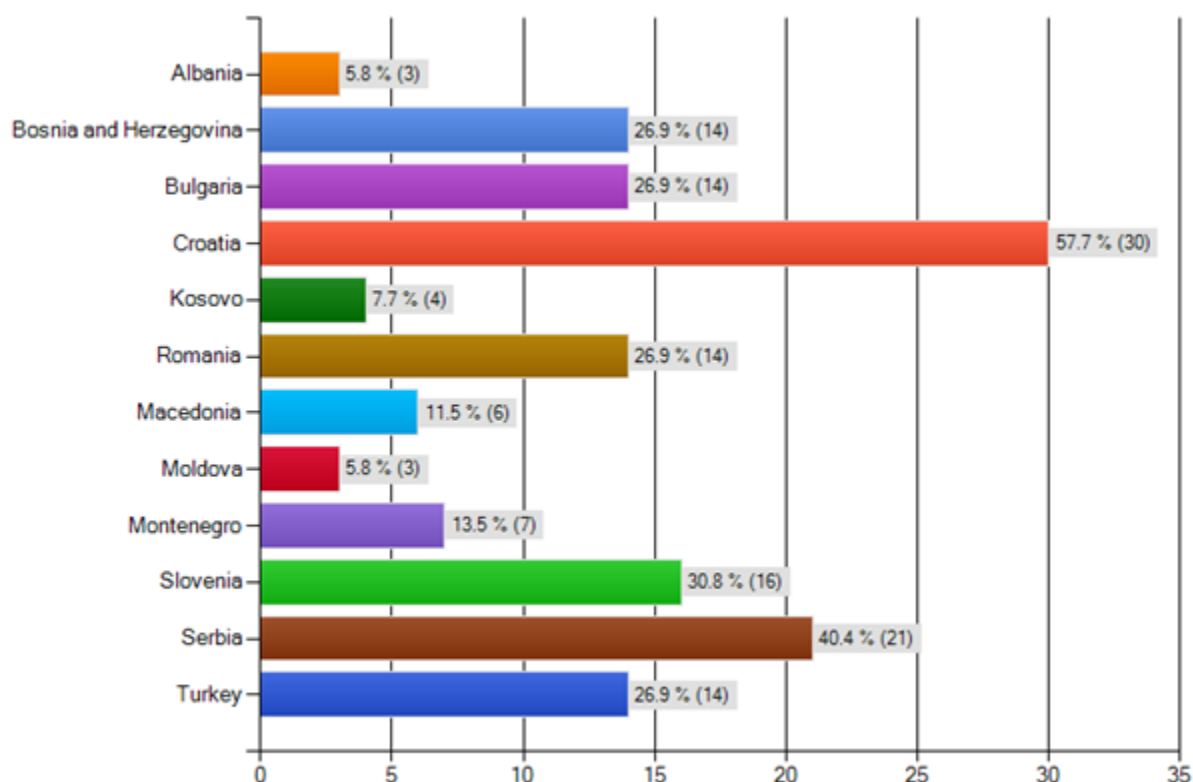
(Croatia, Slovenia and Germany are most represented in the online survey results).

Regarding the years of experience and length of presence on the market, we can classify the survey companies into two groups – those that have been dealing with EE/RE services for a longer time (more than 10 years)(38%) and quite a large number of companies that have recognized a potential of this area in last 1-5 years (about 41%). Large companies are longer in this business and small companies usually just recently entered the market. About 20% of the companies are present in the EE/RE market between 5 to 10 years.

## 2.2.1 Demand and Supply for Investments/Partnership Projects with Local Governments

### *EE/RE Companies' Presence on the SEE Market*

The surveyed companies operate in the following countries:



In addition to the listed countries, many of them cover additional, non-SEE countries, including: Russia, Ukraine, Italy, Germany, Hungary, Greece and Austria.

### ***Coverage of EE/RE Areas***

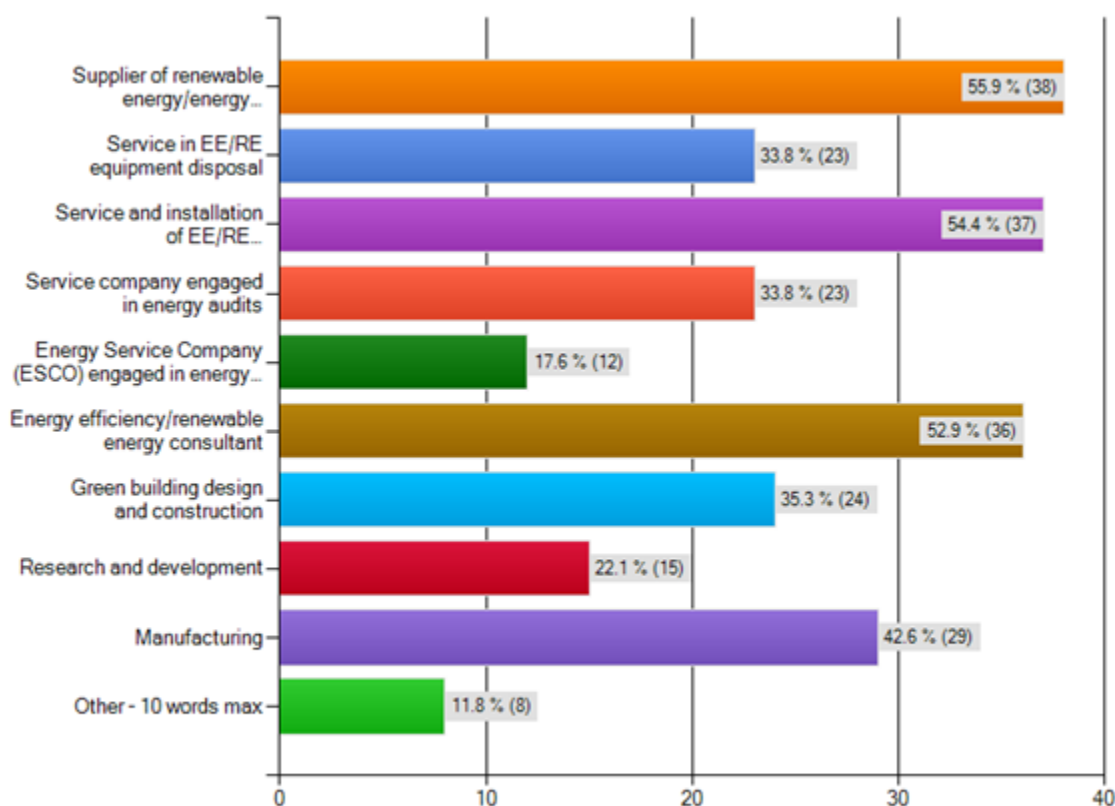
The surveyed companies' top three EE/RE areas of operation fully match the LGs priority areas and planned project needs:

- EE in buildings (56%)
- Solar energy – including photovoltaic and thermal energy (50%)
- Public lighting (42%)

The stated answers reveal trends in the field of EE/RE in the global market. Most of the companies offer products and services in the domain of energy efficiency/building sciences (56%), solar energy - including photovoltaic and thermal (50%) and Energy efficiency/public lightning (42%). In some lesser extent there are companies that deal with wind power (33%) and bio-energy – wood pellets, crops, waste, and their derivatives (32%). All other fields are represented below 20%. By comparing these with previous answers we can conclude that most of the companies that deal with energy efficiency/building sciences are actually much segmented. Very few companies have integrated services in the domain of energy efficiency/building sciences.

### ***Typical EE/RE Products and Services:***

The companies provide the following EE/RE types of products and services:



According to the stated answers we can easily determine trends in the field of EE/RE in the world. Most of the companies are suppliers of renewable energy/energy efficiency technologies, offer service and installation of EE/RE efficient technologies and services of energy efficiency/renewable energy consulting. There are also manufacturers (43%), companies that deal with green building design and construction (35%), service in EE/RE equipment disposal (34%), service companies engaged in energy audits (34%). Relatively few companies (18%) offer ESCO services.

### ***Energy Service Contracting (ESCO Model)***

Companies are mostly aware of the ESCO market (61%) but from previous responses we can conclude that very few of those (every fifth on average) offers ESCO services.

The supply of ESCO companies is high in Germany, Slovenia and fairly good in Bulgaria. The market is now being developed in Croatia and less quickly in Serbia. ESCO model is not popular in Turkey and, consequently, there are almost no ESCO companies in that country.

### ***Products and Services Listed by Surveyed Companies:***

#### **EE equipment:**

- Pumps for heating and cooling business and private spaces, solar collectors for water heating, polyester measuring and distributional enclosures, street LED lighting that offers large energy savings.

- Boiler plants fired by different kind of biomass. Steam, hot water and thermo-oil boiler plants as well as CHP, combined production of heat and power
- Smart automation systems that improve energy efficiency in aspects of HVAC and lighting, in buildings, recreational facilities and public lighting
- Gas supply system, gas heating central, biomass heating central and energy efficiency
- District energy systems
- Design new systems with new technologies and highest EE and low pay back time. Designing systems with alternative heating energy sources like waste energy, solar energy, heat pumps
- Plastic heat exchanger systems, complete collectors/collector chambers with flow regulation, polyethylene pipes and fittings, accessories and welding equipment for these products

#### **EE construction materials and services:**

- Aluminum facade, doors&windows, interior, insulated glass units, safety glass, etc.
- EE renovation project for hospital, hotels, office buildings, multi family buildings.
- architectural design from small to large scale with an emphasis on energy efficiency of buildings and use of renewable energy sources
- Preparation and management of building energy renovation projects;
- Development of modern energy concepts for new buildings with emphasize on nearly zero energy buildings concept;
- Automated buildings design and --integration based at open protocols ( Lonworks, bacnet, modbus) by usage of our brightcore framework through all disciplines ( lighting, HVAC, ...)
- Design and deployment of intelligent buildings
- Special products such as glass-glass modules, Solrif modules for building integration replacing conventional roof covering of pitched roofs, are unconventional approach in finding new methods which are different from the current industry standards,

#### **Energy Performance Contracting:**

- Energy management of buildings.
- ESCO services;
- Energy Performance Contracting in public building, street lighting and in industrial systems. Performance of energy audits, designing and implementing of energy saving measures.

#### **EE promotion and consultancy:**

- Promotion of low-energy and passive house standards, improving existing buildings and reconstructing low-energy and passive house standards, as well as advising professionals and educating the general public.
- We are an open type organization which promotes the awareness of energy efficiency and its application in the field of architecture, civil engineering and social development.
- EE/RES consulting
- EE audits, project design, planning and management
- Energy audits and issuance of energy certificates
- Financial consulting with regard to investment in energy saving projects;
- Consulting and education on energy savings for the public sector, financial institutions and designers;

**Lighting equipment:**

- EE lighting - luminaires and systems
- Effective lighting systems
- Lighting design, comparable calculations of different lighting solutions, lighting consulting, maintenance of lighting systems, lighting management systems planning and operating, lighting solution providing
- EE lighting projects and products for indoor and outdoor

**Solar energy systems/equipment:**

- Thermal solar systems
- PV plants

**Hydro-energy systems:**

- Small hydro plants

**Wind-energy:**

- Wind turbines

**2.2.2 Private Sector Investment Strategies and Projects in the Area of EE and RE**

In the area of EE, the companies will continue to be focused on EE in building, public lighting and transport. Based on the survey answers and interviews, it can be concluded that the majority of the companies will be very active in domain of offering EE/RE services in SEE region, including all services from marketing and selling energy efficiency technologies and materials (57%) to conducting EE project through Energy Performance Contracting in public lighting (34%).

In the area of RE, the surveyed RE companies will be mainly involved in building and testing of power plants (72.5%) and designing of power plants (65%). It has to be noted that this question is applicable only for companies that deal with RE sector. About 45% will start operating power plants and, consequently, marketing and selling produced energy (45%). This involves mainly solar plants, wind turbines and hydro-energy plants. For example, in Turkey, the government is encouraging private companies to build power plants (auto producers) to meet their own needs, and construct larger power plants to sell electricity to other neighboring companies and to the state and to take over existing government-run facilities to help maintain growth in energy.

Potentials and modalities for marketing and selling of energy obtained through renewable sources of energy would be an interesting topic to address at a NEXPO 2013 forum.

Apparently, the companies participating in this survey have a long history of cooperation with local governments. Representatives of the private sector have the most extensive experience in implementing EE/RE projects in Croatia (43%), Slovenia (37%), Serbia (33%), BIH (25%), Turkey (23%), Romania (22%) and Bulgaria (20%) and much less projects in other countries.

A complete list of the municipalities they have worked with, including the accomplished projects at the local level is provided in the details statistics document, provided in 14 (detailed results of the private sector survey).

In order to be able to set up and implement projects at the local level, the companies need:

- Technical documentation (construction and/or technology documentation) – companies that deal with EE in buildings sector (75%),
- Data on energy consumption (72%) – tightly related to the buildings sector,
- Information on available investment locations (65%) – related to investments,
- Documents on development plans (63%) – potential investments,
- Information on costs of doing business (54%),
- Information of existing SMEs that could be partnered at the local level and spatial planning documents (53%).

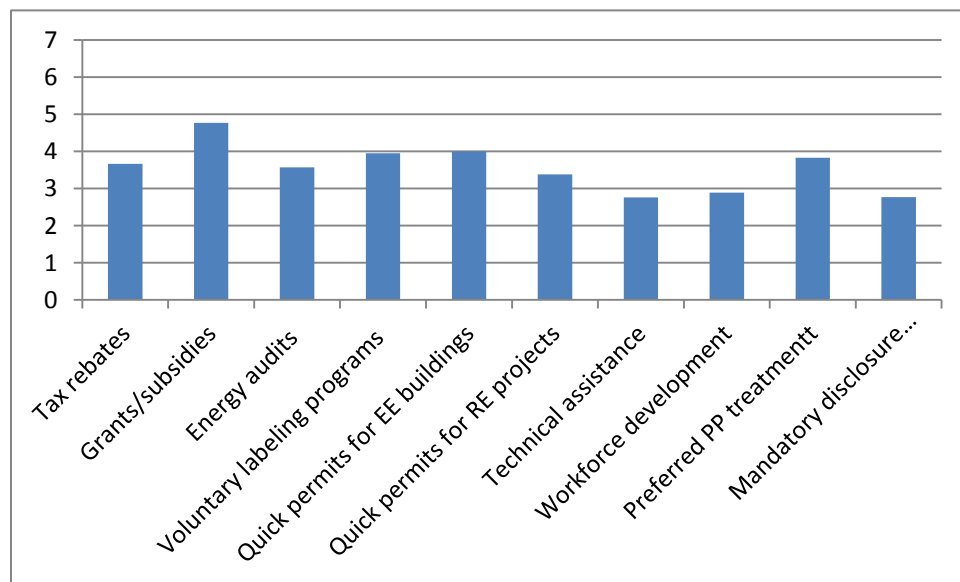
Last, but not least, the surveyed companies stress out importance of data on real estate property and ownership (47%). In short, almost all of the stated information should be available to the private sector in order to create and offer EE/RE projects.

### ***Acceptable Payback Period for the Private Sector***

Most of the surveyed companies seek for investment payback in the period of up to 5 years (44%). For larger infrastructure projects this period is 10 years (24%) while for large infrastructure ESCO and PPP it can be 15 and more than 18 years (about 9%). Some special services have much shorter payback period up to 3 years (16%).

### ***Incentives for EE/RE Investments***

#### **Incentives Offered by Local Governments**



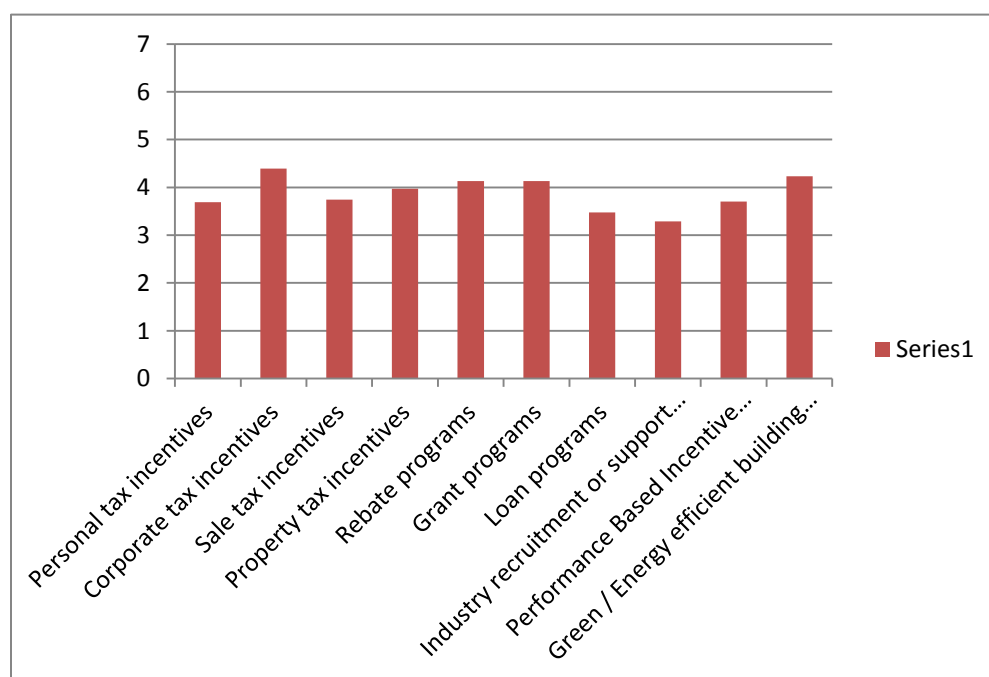
Due to different experiences across countries and many companies that deal with many activities and interests there is a significant dispersion of answers.

Nevertheless we can conclude that the most appropriate tools for boosting EE/RE investments are grants - direct payment subsidies (avg. 4,8), building permits are

processed more quickly for energy efficiency measures in new and existing buildings (avg 4), voluntary labeling programs (green building, energy star, zero energy, etc. (avg 3.95) and preferred treatment by government procurement (avg 3.8).

## **Financial Incentives for EE/RE Projects and Activities**

Most appropriate forms of incentives for the companies are corporate tax incentives (4,39), grant programs (4,13), rebate programs (4,12) and green / Energy efficient building programs (4,11). Other instruments are less popular.



## ***Major Issues Encountered in EE/RE Project Implementation***

The major problems are difficulty in convincing clients of benefits of EE equipment (61%) lack of funding (51%) and difficulty in identifying demand (41%).

This confirms the notion that LGs do not have qualified and skilled individuals that deal with EE/RE projects. In addition, there is a problem of funding and lack of understanding of EE/RE projects in banking sector.

Most of the companies agree that one of the largest problems that leads to lack of LGs motivation for EE projects is that EE is often not regarded as a priority (75%), lack of awareness on energy efficiency (63%), lack of consistent investment plans in EE products and technologies (51%) and „Quick-win “investments favored over EE projects with longer payback periods. There is also a problem of lack of trust in EE technologies due to lack of information and knowledge about EE market. These findings were also repeatedly confirmed in the field in all three in-depth assessed countries.

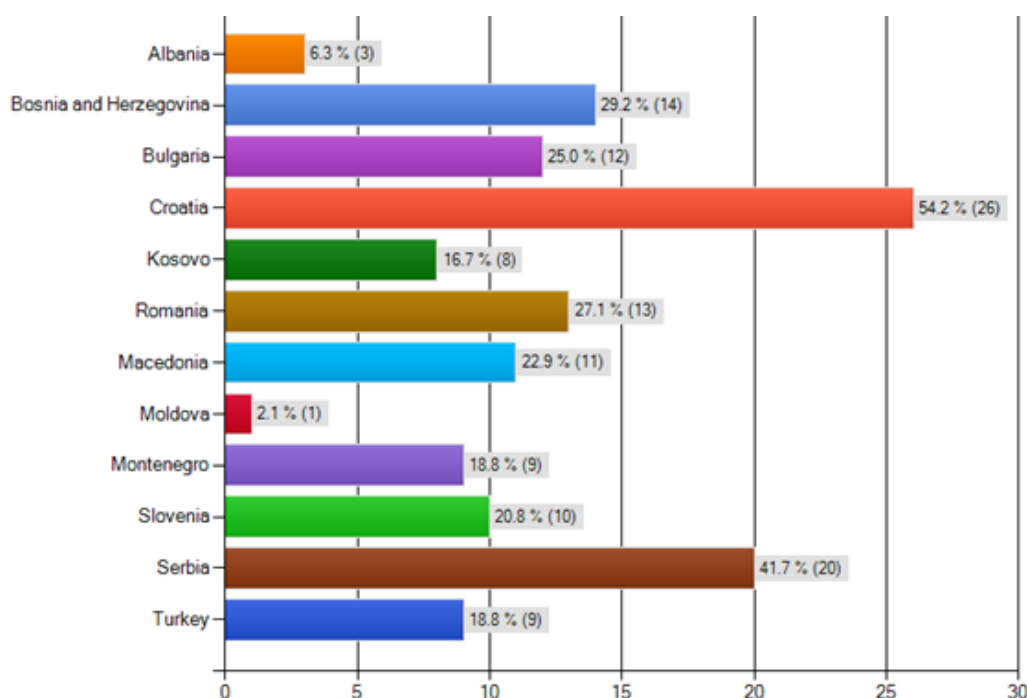
It is a great benefit of this survey that it has identified the key underlying factors for a lack of capacity and motivation of municipalities to do EE/RE projects. NEXPO 2013 will be an excellent opportunity for the LGs and the private sector representatives to discuss these major issues and to start to jointly address them.

It may also be concluded that many local governments have prejudices towards EE/RE investments and establishment of EE partnerships. NEXPO 2013 should welcome both the LGs and the company representatives to present real examples, facts and figures of the benefits of EE/RE projects.

Local governments need to be constantly informed about new technologies, products, services and practices. There is no better forum for such exchange than NEXPO-type events.

### ***Future Investment Destinations***

According to the survey, companies see the greatest potential for EE/RE project development of the market is in Croatia and Serbia (54% and 42%, respectively). Potentials are also seen in BIH, Romania, Bulgaria, Macedonia, Slovenia and Montenegro (ranging from 29% to 19%). However, this result should be viewed with some reserve and with consideration of the survey sample.



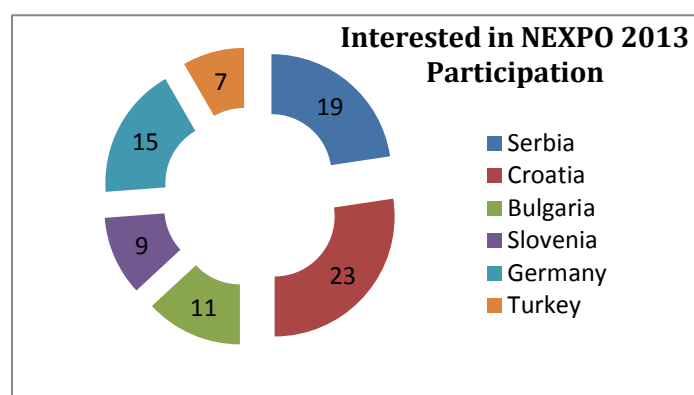
NALAS seems to have rightly decided to do an in-depth assessment of the situation in Croatia and Serbia (and Bulgaria, primarily as the next NEXPO host). As a new EU-member state, Croatia will be building a huge EE/RE market in the next 5 years, and is, thus, an interesting investment destination. As a very poorly developed market, but as a prospective EU-candidate country, Serbia is also of great interest for investors.

When it comes to Turkey, their companies successfully meet most of the requirements of their national market, but German companies also have a significant presence in the Marmara region. German companies cover the entire SEE region, mainly through their branch offices in most of the countries.

Based on experiences with communication with the private sector representatives in Slovenia and Germany we can conclude that there is an impressive market of EE/RE technologies that contains production of goods and delivery of goods and services. Development of such activities was triggered by new EU directives and system of incentives for EE/RE technologies. This trend has been set of by Europe and nowadays is becoming global. Experiences from stated countries show that there is a substantial competition on markets in solar technology and energy savings in buildings – systems of heating, cooling, ventilation, hot water preparation, isolation etc. There are also few large companies that offer complete range of products and services in the EE/RE sector.

Companies are generally familiar with the ESCO model of business but only few of them (20%) offer such services. For a difference from EE/RE market, in the ESCO market there is no substantial competition and market is still under development. The same refers to Energy performance contracting market (EPC). There are also examples of conducting infrastructure projects by PPP. Such references usually belong to large multinational corporations with strong possibilities for self-financing of the projects.

### 2.2.3 Participation of the Private Sector in NEXPO 2013



76.5% surveyed companies have expressed interest in participating in NEXPO. The greatest interest for NEXPO 2013 was expressed by Croatian, German and Slovenian companies, which is logical, with respect to the venue of the Fair. There is also significant interest from Serbia and to some extent from Bulgaria. Turkish EE/RE business sector is the least interested, as it seems to gravitate more towards Asian and African markets.

It is important to bear in mind that a relatively high level of expression of interest (76.5%) for the NEXPO 2013 is a result of the organizers decision that the main topic of the fair is related to EE/RE sources. At the moment, this area is booming and this is, also, of major interest for private sector investments. Companies are very much interested for specialized fairs such as NEXPO. It has to be noted that, in general, companies are less and less fond of participation at investment fairs – they find this too expensive and new IT technologies enable much better possibilities for business interaction and communication (and are cost saving).

The responses of the companies which do not want to participate also offer a number of learning points:

- We need more detailed information (8)
- Too short notice – costs for fairs need to be planned in our marketing budget (3)
- No market entry planned (1)

Generally, **Turkish companies** get involved in projects and attend fairs with which they are familiar and from which they can have proven benefit. They are not so open for establishing new cooperation. They get involved only in serious projects and are very selective. All companies that were visited are doing well on the current market and, therefore, do not eagerly accept new initiatives.

**Bulgarian companies'** interest varies depending on the EE/RE area they cover. Wind energy companies have expressed significant interest in participation, mainly due to their need to expand to new markets in the SEE region. There is a considerable interest of regional energy agencies and the EE/RE Fund to attend the Fair.

Naturally, due to the venue of the Fair and expected high participation of Croatian municipalities there is a high level of interest from **Croatian companies** to participate.

Almost all visited **Serbian companies** expressed initial interest for NEXPO 2013 participation. They all find forthcoming Fair a very interesting event, because EE/RE are still an uncovered area in Serbia with many possibilities. A few have been cooperating with local governments, but a great majority of larger companies sets priorities on large projects mainly out of country, and a lack of market demand for EE/RE project, as well as lack of legislative framework are the biggest obstacle. Consequently, larger companies are those who are predominantly interested in the Fair. Generally, Serbian companies would like to have more information about NEXPO 2013. Also, all visited companies find presentation of municipal strategies and projects prior to investment forum as very important.

**Slovenian companies** are already very present at the market and many of them have developed sustainable distribution channels. However, they find the motivation for participating at the fair in order to observe the state of competition. They would also like to see some major global companies. Some of Slovenian companies are also global and they are able to engage in a market as a trendsetter and a leader - they are interested to cooperate with local SMEs and to learn more on institutional and regulative framework.

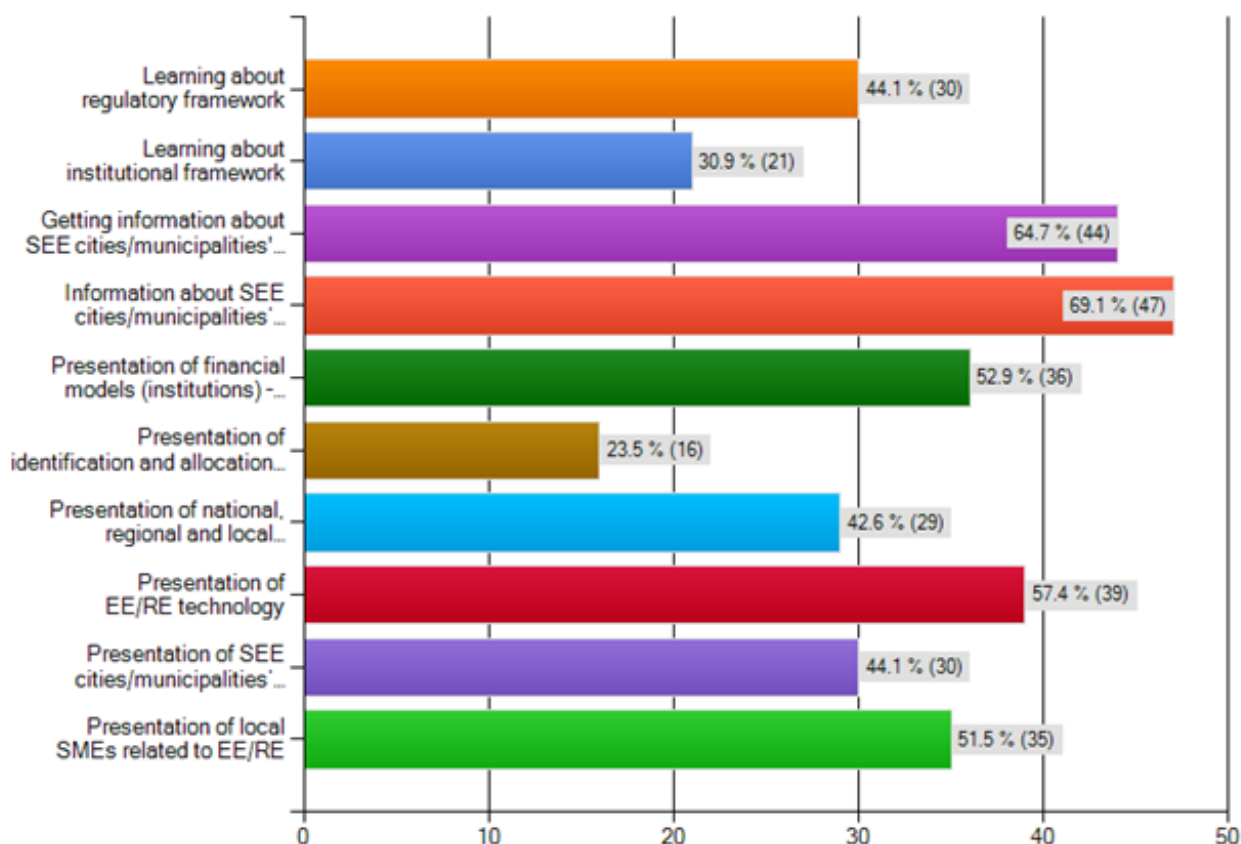
With regard to German companies there are differences in the amount of interest in participation at the Fair depending on the size of the company. Germany has an exceptionally large number of major global companies which are either already presents at the market or this market is too small for them. The organizers of the Fair would certainly reap benefits by inviting some of these global companies to support the fair because they would attract a number of SMEs in the sector. SMEs and new companies are keener to participate at the market since the German market is rather saturated and competitive. Particularly interested in participation are new companies with technologically innovative products which are in the phase of expansion. However, part of the SMEs is not interested in this market due to domestic orientation.

All companies, and particularly Turkish and Bulgarian ones, would prefer to have more information about NEXPO 2013 before they decide to attend the fair (price of booth, thematic presentations, number of EE/RE companies and countries/municipalities that applied for the Fair, etc.). This information should be delivered to them as soon as possible. Almost all contacted companies **find presentation of municipal strategies and projects prior to investment forum as very important**. A lack of information will prevent those that would be interested to attend NEXPO2013.

### ***2.2.3.1 NEXPO 2013 Activities Proposed by the Business Sector***

Most of the companies would like to present their products and services directly through their own booths (60%) and public presentations (57%). There is also substantial interest for providing workshops for LG representatives on topics of common interest and advertising (33%), and a relatively minor interest for video presentations (20%).

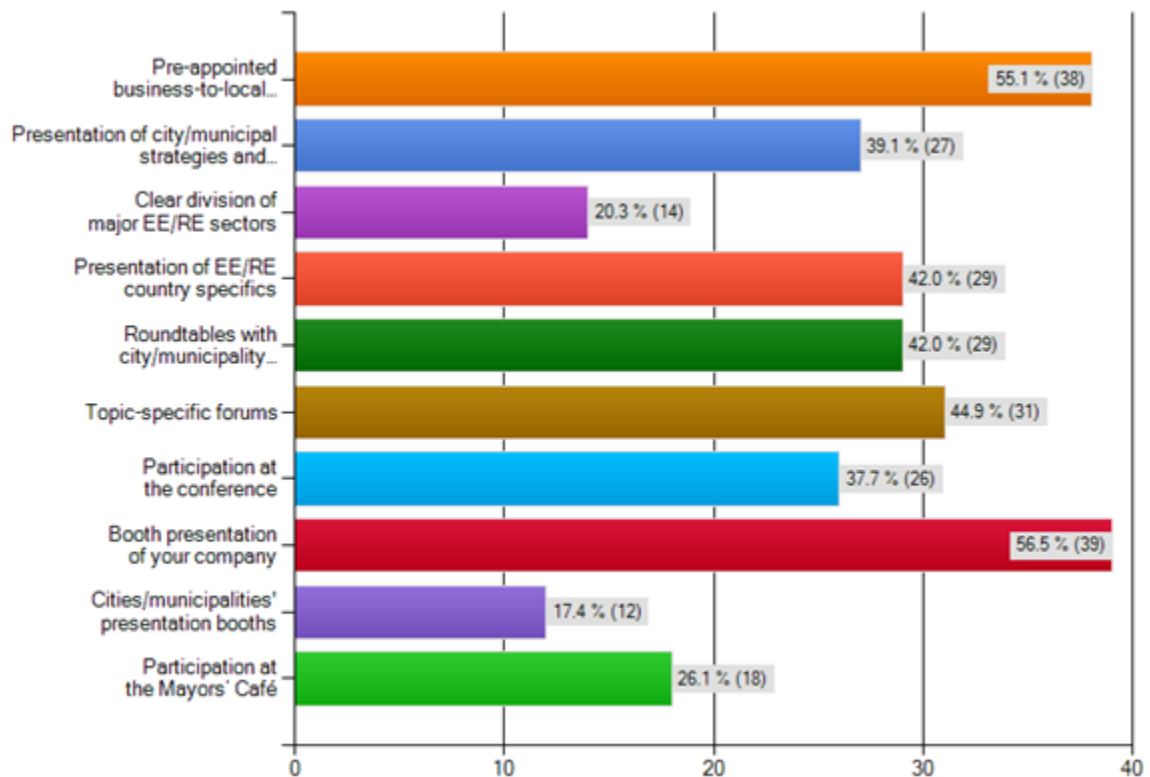
The following are the activities of the private sector's interest:



The private sector's interest for activities at the Fair is mostly based on getting information about planned infrastructure and other development plans and projects of local governments. This can be observed by the needs for information about SEE cities/municipalities' projects in energy efficiency/renewable energy EE/RE (69%), information about SEE cities/municipalities' investment priorities and needs in the area of EE/RE (65%), Presentation of EE/RE technology (57%). Companies are interested also in financial models (53%) and local SMEs as potential partners (51%). Reasonable interest is presented for learning about regulatory framework (44%), presentation of SEE cities/municipalities' investment locations (44%) and presentation of national, regional and local government incentives and funding schemes (42%).

It has to be noted that companies are very much interested in their competitors' products and services and also their plans in the region. Therefore, very valuable lesson for organizers of the fair would be to invite some of the major players in the field (such as Siemens and other leading companies) which would attract other minor and competitive companies to apply for the participation.

## 2.2. Matchmaking Opportunities for Local Governments and Private Sector



With regard to the matchmaking process, the private sector is mostly interested in pre-appointed business-to-local government meetings (55%) and presentation of the company (57%). We can conclude that the company wants to utilize the Fair for direct contact with potential clients and start concrete projects.

The interest for presentation of EE/RE country specifics, roundtables with city/municipality representatives, topic-specific forums and participation at the conference is also considerable (42%, 42%, 45% and 38%, respectively).

However, it has to be stated that the major precondition for business to local government meeting is appropriate information system that enables such meetings. Therefore, it is very important that the NEXPO 2013 organizers carefully plan the matchmaking process, by matching the LG Project Catalogue Input with the EE/RE Company Catalogue presentations of projects and services and by sending the information to municipalities/companies prior to the Fair. The preliminary matchmaking criteria should include:

- Geographic proximity,
- Experience of companies with similar LG projects,
- Requirements of companies for specific locations,
- Requirements of companies for specific matchmaking activities at the Fair.

It is also very important that the organizers adopt a facilitator's role in this process and that they assist the LGs with clear Guidelines and Templates for preparing their profiles and presentations to match the exact needs of the private sector. LGs tend to present things that are unimportant to investors – for example, general-type presentations of the community's history and tourism potentials should be avoided as much as possible.

The largest interest of the private sector is to meet representatives of local governments in charge with the consumption of energy and energy sources – energy managers (85%). This shows that private sector is mostly interested in direct contact with operative representatives of LGs in order to obtain necessary information more easily and to increase their chances to conduct concrete projects. After that companies would like to meet heads of city/municipality departments (54%), sectoral ministry representatives (49%), mayors (45%), representatives of energy efficiency networks (41%), and heads of regulatory agencies (38%). It is important to note that there is a strong interest to meet all investment-related stakeholders.

The matchmaking platform should include a carefully planned programme of meetings. In addition, an open space should be considered, where the business sector would be able to choose the focus group they want to talk to.

Most of the surveyed companies (44%) would like to arrange 5-10 meetings at the Fair with the representatives of the LG. This data show that companies are willing to invest time and resources for direct and concrete discussions about implementation of the projects with operative representatives of LGs. About fifth of the representatives of the private sector is interested for 1-5 meetings. This number of meetings mostly refers to the companies that offer large infrastructure projects such as construction of heating system for LGS. 10-20 meetings are preferable for companies that offer selective services in domain of EE/RE and also equipment producers. Only about 3% of companies would like to have more than 20 meetings at the NEXPO 2013 fair. The number of meetings depends on a number of parameters. Some companies stated that the number of meetings is not an issue because, in case that these meetings are judged to be fruitful, they will engage all necessary resources (larger companies).

### **2.3.1 Value Drivers and Market Opportunities**

Key value drivers regarding local governments in Croatia, Bulgaria and Serbia still come through external pressures. It is our impression from the field visits that only a small number of cities and municipalities are driven by their own needs to decrease energy consumption or reduce CO<sub>2</sub> emissions. Croatian level of awareness regarding these issues seems to be somewhat higher than in Bulgaria and Serbia. Even those local governments that are the signatories of the Covenant of Mayors do not seem to pursue the “20-20-20” goal with specific local energy efficiency needs and priorities in mind. It seems that it is the “carrot and stick” approach that drives the local governments towards energy efficiency project implementation. This, in turn, implies that national legal and regulatory framework for energy efficiency policy is fully in place, which is, more or less, the case in Bulgaria and Croatia. In Serbia, the Law on Rational Energy Consumption has recently been adopted, but the overall regulatory framework is still being built. Thus, the local government market in the area of energy efficiency is, generally, driven by the priorities defined in national legislation, in line with the EU pressure to comply with the energy efficiency standards in buildings, public lighting, or public transport.

When designing the matchmaking platform, this needs to be taken into account: the Fair programme should include presentations of the drawbacks of national legislations, as well as the opportunities provided by the national level; presentations of EU EE standards; promotion of various EU initiatives, such as the *Covenant of Mayors*, *Intelligent Energy*, etc.

However, many local governments still do not have reliable data on energy consumption, either because they lack the necessary skills and knowledge, or because they lack appropriate tools to

calculate it. During the field visits, for example, a number of IT solutions have been encountered for the calculation of building thermal characteristics – designed by both the public and the private sector. Energy consumption monitoring is another issue – very few local governments can be said to have reliable systems in place, except in Croatia where Energy Management Information System (EMIS) is in place. Up to date, EMIS is only partially connected with remote meter reading. However, local governments are gradually introducing a system of remote meter reading which enables intelligent energy consumption management, for example, the City of Bar in Montenegro. Moreover, an interesting model of remote energy consumption monitoring system is now being established and tested in the Bulgarian municipality of Pernik, in partnership with a private company (Energysyst). The idea is to integrate all energy consumers into one system (buildings, lighting, transport) and monitor consumption in real time. Reliable data about energy consumption and reliable analyses would help identify the priority areas of intervention and consequently, create new market opportunities.

Local governments are very keen on learning about possible energy calculation models and software solutions that can be helpful in managing energy data. Such examples should be presented in the NEXPO2013. Ability to calculate energy consumption is directly related to and crucial for performing a situational analysis, as a basis for preparing the SEAP.

Energy Performance Contracting (ESCO model) has, at one point, entered Bulgarian local market, focusing primarily on energy efficiency measures in buildings, lighting, transport, i.e., sectors which are highly dependent on long-term and cost intensive system maintenance. ESCO models are applied in several municipalities across Bulgaria (in some local governments, such as Burgas, or Blagoevgrad, very successfully) – however, since, local government systems of values are frequently shaped and driven by the word-of-mouth on how certain models work in other local governments, negative experiences from some, including the City of Sofia, have made this model highly unpopular. Thus, instead of a growing ESCO market, Bulgaria now faces its significant decline. ESCO models, as a very specific type of public-private partnership (PPP) are rapidly developing in Croatia and Slovenia (and, of course, Germany). They are now entering Serbian energy efficiency market (several ESCO companies have recently been established and are looking for market opportunities), while in Turkey, energy performance contracting has never become popular and is, virtually, non-existent.

Energy performance contracting is definitely an area with a high and long-term matchmaking potential. A workshop on ESCO, with best practices examples from the LGs, along with the clearly presented economic benefits and risk-sharing models, would be very motivating for LGs to decide in favor of energy performance contracting. This workshop would be equally appealing to both the public and the private sector.

Removed budgetary restrictions for the use of financial instruments for energy efficiency projects in the public sector have opened the ESCO market in Croatia in 2012. Energy performance contracting model for purchasers of energy services and other energy efficiency improvement measures in the public and private sector has been defined and Retrofitting program for public sector building a certain booster for energy efficiency projects developed. Even though the legislative and institutional framework of EE/RE sector in Croatia is nominally set, there are still many issues that remain problematic in practice. There is still much to do in order to implement PPP and ESCO-based projects in practice. The government has been very keen on initiating EE/RE investments and has implemented EPC models and solutions in the area of public buildings but still there are numerous problems and risks in place both for private and public sector. In addition there is still much to do in developing financial models and promote PPP and ESCO models through the

financial institutions. Even though Croatian Bank for Reconstruction and Development offers simulative funding and some commercial banks have credit lines from EBRD there is still a lack of understanding of project financing that has to be implemented in ESCO and EPC projects. EE/RE contract are rather complex and both public and private sector subjects still do not understand and cannot evaluate potential risks in EE/RE projects. Overall, these constraints are in front of stronger implementation of EE/RE investments. There was a strong spike of investments in solar energy sector when the government relaxed the procedures and while feed-in-tariffss were high. However, there is a great uncertainty at this market due to feed-in-tariffs limitations based on the first-come-first-served principle. The value of tariffs is based on political decision and this causes uncertainty in business sector and creates dissimulative surroundings.

The energy efficiency market is currently in developing phase in Croatia, 44 cities are signatories of Covenant of Mayors' initiative and 32 of them have obliged themselves to implement specific energy efficiency measures defined in their Sustainable Energy Actions Plans (SEAP).

Regarding renewable energy use, the situation varies from country to country. The survey and the field visits indicate that local governments recognize their potentials, thus, force projects that comply with their own resources and needs (an insight into field visit reports from municipalities clearly shows that municipalities take their natural resources into account and base their investment planning on local renewable energy potentials). While national level regulations play an important role in this area, too, influencing the renewable energy market by the prices of energy, feed-in-tariff policy etc., the market seems to be equally driven by the local governments' ability to attract investments, i.e., to provide appropriate locations, offer certain incentives and tax holidays for the interested private sector investors.

Obviously, availability of locations for renewable energy projects, along with the necessary infrastructure, clear strategic framework, necessary technical documents and shortened administrative procedures of licensing and permitting are among the key factors for successful investments in the RE area. Therefore, NALAS' assistance to LGs with guidelines on how to prepare their offer for the private sector, as well as how to present it at NEXO 2013, is crucial.

Wind energy was extremely popular in Bulgaria at one point, but poor market regulation (low cost of energy, energy production exceeding consumption, decreased feed-in tariffs) and high costs of wind turbine production and installation have caused the initial enthusiasm of local governments towards this, once very popular renewable energy source to dwindle. According to the Deputy Executive Director of the Bulgarian Wind Energy Association (BGWEA), which has more than 60 members, many wind energy producers are now turning to new, neighbouring markets (e.g., Romania, Serbia, Croatia). Bulgaria has also developed a solar energy market, the growth of which is heavily dependent on the ability of national governments to provide ensure business-friendliness, as well as on the capacity of local governments to provide adequate locations and create an agreeable investment climate for the private investors. The cooperation of LGs and the private sector, generally, ends at public land provision for private investments in the area of renewables.

Croatia has very good natural conditions for energy production from renewable energy sources. The policy instrument mix addressing energy efficiency and renewable energy investments have been improved during 2012. Revised FiT tariff in 2012 has set up a progressive framework for fostering renewable energy development industry where producers can get the payments for 14 years, while administrative procedure for installment of integrated solar systems on roofs has been simplified. The country is still highly centralized and, therefore, local governments are often

characterized as not willing to cooperate, due to a lack of local initiatives and limited capacity to handle such projects. So, despite a high potential, the share of new renewable energy in energy production is still staying marginal and up to now, only few renewable energy plants have been built. In general, the cooperation between the private and the public sector is still rather weak. Poorly conducted public procurement slows down the implementation of EE projects. Taking risk between public and private partners is not clearly defined.

There is a strong interest from foreign investors for investments (WPD, GES) in wind energy. Currently, 89 projects are in the phase of preparation or construction, with a total power of about 4100 MW. It is very unlikely that conditions for receiving so much power in the network can be created.

In the field of solar energy, there is also a strong interest of investors: 328 projects are in the implementation phase, with a total power of 80 MW. It will be very difficult to secure funding for incentive rates for many solar power plants. In Croatia, there is a trend to reduce the tariffs in solar technologies (in Slovenia, this trend has been present since 2012).

In the domain of biogas and biomass, about 140 projects are currently in preparation, with a total power of 310 MW. Also in the field of hydro, 60 small hydro and 1 geothermal power plants are being established. All this production will require additional investment in the transmission system and electricity distribution system.

Since wind energy market is only being established in Serbia at the moment, this country is perceived to offer new, lucrative investment opportunities. At the moment, there is ongoing lobbying for adoption of the legislation necessary for the development of this market and start of significant projects.

The results of the survey also indicate that the private sector has a clear idea of how to approach the market, including: *lobbying at the national level* (which explains a high percentage of interest for meetings with representatives of national level regulatory bodies); *direct inquiries about the technical status of projects and administrative requirements* (through meetings with energy managers); *negotiations with the decision-makers at the local level* (during meetings with Mayors at the Fair) and *learning about their competition* in the region. Therefore, it is very important that such private sector needs are carefully considered when designing the matchmaking platform.

When it comes to EE/RE market in Turkey, it is a rather closed system, almost sufficient to itself. As one of the interviewees has put it “solely Istanbul is a market to itself”. In Marmara region, most of the EE/RE companies are concentrated in Istanbul, Bursa and Izmit. Turkey has a favourable geographical position in terms of the variety of renewable energy sources – hydro energy, biomass, wind, biogas, geothermic and solar energy count as the leading renewable energy sources, sharing a huge portion of energy production (approximately 20%), with a target set for 2023 at 30%.

In Turkey, Marmara Region, solar energy is one of the most popular RE source. Obviously, the market in this country is driven by the vast opportunities for solar energy use, due to its climate and abundance of sunny days. Wind energy use is also very popular. Consequently, the market is, virtually, saturated with solar and wind energy production companies. Other RE sources include biomass and pellet production, which accounts for a large number of companies which produce equipment for energy production from these sources (pellet boilers, heating pumps and other HVAC systems). Although Turkey is one of the main exporters of this equipment to Europe (for example, in Bulgaria, many visited pellet or biomass production companies use Turkish

equipment), the feedback obtained during the field visits indicates that Europe is not their primary market – the visited companies are primarily focused on meeting the demands of their own country, and then expanding to the Near and Middle East and Northern African markets.

Germany is an absolute leader in the area of EE in public and private-owned buildings and industrial processes. It covers a large portion of the market when it comes to public lighting, but in other EE/RE areas, as well. It is also the greatest European exporter of EE/RE-related products and services, with companies and branch offices present in all other visited countries. During the assessment, more than 600 companies related to EE and RE have been identified. Germany is not only one of the best suppliers of EE construction materials and equipment, but its companies can also be presented at the Fair as successful business models. Since German companies are constantly expanding to new markets, NEXPO 2013 should also be seen as an excellent opportunity for B2B exchange and the creation of new partnerships.

German EE/RE market has a long history where there is a continuous cooperation between government and business sector. In a way we can state that EE/RE industry is developed not only to meet the demand at domestic market but to create strong export industry. Some of the largest EE/RE companies in Germany have a full range of EE/RE products and services and they act as a multinational/global leaders and trendsetters. However, these companies are very open to cooperation with SMEs that operate in EE/RE sector and, very often, these companies, if proven successful, are subject to acquisitions. Strong support for all companies is provided by German government either to very low costs of financing through development and local banks or by providing different incentives. It is important to address the role of central and regional government agencies that strongly promote EE/RE sector both domestically and internationally. In addition to that, we have observed strong presence of R&D sector that comes both from public and private sector. Well known R&D public institutions (Fraunhofer Institute) and R&D departments of large companies (Siemens, Airbus, Audi etc...) had a significant role at the Hannover fair. We can say that German approach to this issue has been very comprehensive and integrates a kind of a cluster of public and private subjects that act together and keep the country on the top of technological and economic frontier in this sector.

If we pay attention more specifically to the German market, we can note that it is a very competitive market, mostly due to large number of companies that possess advanced technology and knowledge in EE/RE sector. Most German companies declared that the process of public procurement is not a problem and that government provided favourable institutional and regulatory framework. ESCO services and PPP services market has been established and steadily a long time ago in Germany. Even though the financial terms for financing projects are very much favourable, it is important to note that German companies are mainly funded by their own capital. The public procurement procedures and institutional framework stimulates technological advancement because companies that enable better EE/RE solutions easily win public procurement tenders.

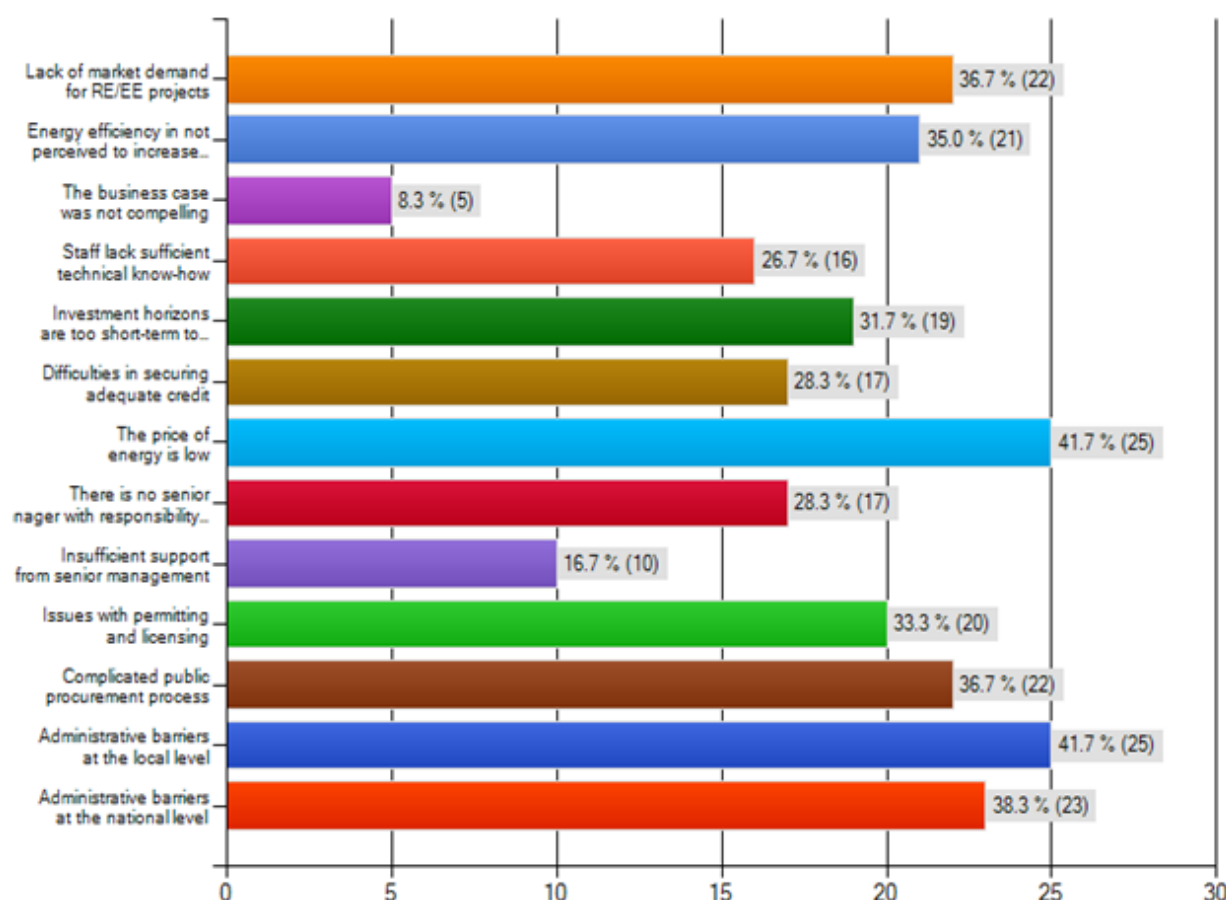
A high interest of German companies to present their services and products and NEXPO2013 indicates the importance of SEE markets for them. German companies' participation is very important, as it will play a major role not only with regard to establishment of potential partnerships and investments, but in transferring valuable know-how, innovative products and services to the participants of the Fair.

Regarding Slovenian EE/RE market we can state that it is one of the most advanced in the region, however, it is far from being saturated. One of the problems very present among Slovenian companies is that economic and financial crisis has made EE/RE sector very competitive. The core

of EE/RE companies set 5-10 years ago is jeopardised by companies that enter the sector mainly from construction industry which is in deep recession. Regarding the institutional and regulatory framework, it is mainly shaped by the EU directives and regulations and mostly based on the EU structural funds. There are numerous examples of utilization of EU funds in many sectors (public lightning, EE/RE in public buildings etc.). One of the problems is that Slovenian market is small and, therefore, companies have to try to extend to foreign markets. One of the largest Slovenian companies (Petrol) has a full range of EE/RE services developed and applies EPC in their operations coupled with strong self-financing possibilities. There are standard problems which curb higher level of investments that plague whole region such as public procurement difficulties and inadequate funding. It seems that government was not that successful in resolving these issues but more relies on EU structural resources and directives related to EE/RE sector.

## 2.3.2 Key Obstacles for Partnerships and Projects in the Area of EE and RE

### 2.3.2.1 Key Obstacles Identified by the Private Sector



Two largest problems in implementation and execution of EE/RE according to the private sector are administrative barriers at the local level (42%) and low energy price (42%). After that we can observe administrative barriers at the national level, complicated public procurement process, lack of market demand for RE/EE projects, energy efficiency in not perceived to increase buildings' value as an investment (from 35% to 38%). About third of the companies observes obstacles such as: issues with permitting and licensing, investment horizons are too short-term to capture the

benefits, difficulties in securing adequate credit, there is no senior manager with responsibility for EE/RE investments, staff lack sufficient technical know-how (from 27% to 33%). It is important to conclude that there is a great dispersion of results and all of the above stated issues present serious obstacles in realization of EE/RE projects.

Other issues identified:

- Lack of information related to energy consumption in LGs
- Lack of energy managers in LGs (lack of qualified personnel to talk to)
- Delayed payment by LGs after contract execution
- Insufficiently transparent procedures
- Heavy monopoly/corruption associated with energy markets
- A lack of mutual trust between the two sectors, due to bad experience and constant changes of regulations.
- The banking sector in RE is not sufficiently developed. The procedures are complicated and some documents which can be issued at the end of investment are required by banks for loan approval.
- Insufficient regulation or overregulation in some EE/RE areas.
- Lack of creditors trust in models of project financing (SEE region)
- Long-term contracts and long periods of payback
- Uncertainty due to increase of expenditures due to increase of prices of energy and energy sources.

Import of products and equipment related to EE/RE can also be associated with a number of issues. Based on the analysis of the survey results it can be concluded that one of the major issues in the process of realisation of EE/RE projects is the procedure of public tendering (53%), licensing and permitting related to constructing (47%), situational analysis and baseline evaluation (36%) and projecting procedures according the EE/RE standards (23%). Other stated activities are not that problematic. Public procurement significantly slows down the procedures of realization and it presents a significant obstacle for implementation of ESCO projects.

The interviewed companies in Bulgaria, for example believe the preparation of a project in accordance with all standards the procedure is very complicated: "Too many documents and certificates need to be collected, and it may be that not all of them are needed."

Public procurement has been repeatedly encountered as an impediment to EE/RE project implementation. This topic has rightly been recognized by NALAS as a priority one for NEXPO 2013. A prospective public procurement workshop should tackle a number of issues, including the EU procedures – in particular "green" procurements (the principle of EE and environmental protection), transparency and efficiency of public procurement procedures, ensuring competition and equality of bidders through transparent and clear criteria and specifications for EE/RE-related goods, services and goods, bid evaluation process, etc. The workshop should include both LG and the private sector participants to make sure that both perspectives are considered.

A number of obstacles are also associated with the complexity or a lack of regulations:

- Regulation related to EE/RE market (60%)
- Regulation of electric energy market (38%)
- Regulation in the field of construction (38%)
- Regulation of funding provision (32%)

Other regulations present a minor issue.

A workshop or a discussion board on energy service contracting, preferably held jointly by a LG and ESCO company that have established a successful model would be highly desirable and beneficial, particularly for those LGs which are planning to introduce it but lack sufficient knowledge on how this model works.

### **2.3.2.2 Key Obstacles Identified by Local Governments**

- LG lacks information about potential partners/investors (52.0%)
  - LG lacks skills on how to approach the potential partners/investors (38.8%)
  - Businesses are not interested in partnering with LG (32.7%)
  - Legal obstacles (40, 8%)
  - Public procurement limitations (30.6%)
- (Sample: 98)

Additional obstacles encountered in the field:

- Insufficient promotion of LGs' potentials, due to poorly defined product and services, and a lack of promotional skills
- Investments are not decided about at the local level - national level frequently interferes and ruins opportunities for investments
- Lack of lobbying capacities by LGs
- Too strict public procurement rules under the EU/PRAG

Surprisingly, local governments address a lack of information about potential business partners as one of the most important impediments for partnership with the private sector. This result provides a strong indication of need for a matchmaking platform based on exchange of information between local governments and business sector. Second problem is in legal obstacles and public procurement procedures which are over restrictive and complicated for local government administration.

The problem stated as an obstacle – lack of information is a suggestion for improvement of cooperation with the business sector. There is a need for creation of Catalogue of both local government potential projects and a database of EE/RE business.

### **Observations by Country**

In **Bulgaria**, one of the reasons for insufficient cooperation between the public and private sectors are complicated public procurement procedures and a high level of mistrust created by delayed payments after contract execution. Private companies do not trust that public procurement procedures are transparent and are suspicious about bidders being treated equally. This is further illustrated by frequent request for the protection of bidders' rights.

Local governments, generally, lack management skills, project writing skills and human resources to implement complex local economic development (LED) functions, with the exception of some cities (e.g., Burgas and Gabrovo, which has 3 full industrial zones). One of the obstacles to the preparation of good quality EE and RE projects is municipal inability to properly measure energy consumption at the local level. Generally, there is also a visible lack of investors – in many municipalities there are no more than 1-2 investors in the area of EE and RE.

In **Serbia**, there is a strong perception that LGs cannot do anything about investments which are not within their scope of work: "In Serbia, we have no authority to decide about RE projects. All needed licenses and approvals are going through relevant republic institutions – Ministry for Energy, Development and Environmental Protection, Public Enterprise "Srbija Vode", Public Enterprise "Elektroprivreda Srbije", etc.

The **Croatian** state is still very centralized, the local governments are characterized as often not willing to cooperate, what might also hinder the development of RE as local initiatives and capacity to deal with RE projects are missing. Also, the cooperation between the private and the public sector is weak.

Revised FiT tariff in 2012 has set that producers can get the payments for 14 years. However, limitation for PV presents a great weakness. Especially after new FiT tariff has simplified administrative procedure for installment of integrated solar systems on the roofs. This puts a serious barrier in front of an energy source, which has great potential and where the technology is steadily getting cheaper and more advanced.

Prices for fossil energy are subsidized. The low energy prices hinder the development of RE and EE, and prevent technological development in the energy sector in general. Regulated prices of some oil products provide a certain protection to the Croatian consumers; however, they also limit competition and subsidize consumption.

Although RE have been considered in many physical planning documents, spatial planning for RE facilities is non-existent, nor is a strategic energy technology plan, which could include also the development of RE and EE technologies.

Many actors criticize the strong preference of wind in the legislation and in the energy strategy, connect this to lobbyism of German wind companies and assume that therefore, solar energy and small-scale projects are neglected. The rationale behind the limitation for PV is supposed to be the technology's relative high price, which the Croatian state was not willing and able to pay for. The second reason might be the weak interest groups pushing for solar energy. Fund for Environmental Protection and Energy Efficiency (FZOEU) established in 2004 should finance investment by private persons and local authorities, primarily through long-term "soft" loans and grants in EE and RE. The Fund has significant amount of money that could trigger RE and EE development. But the problem for years was that the majority of its means went to waste management and not to RE and EE development. At the end of 2012 Fund has announced that it will subsidize RE and EE projects in 2013 with amount of more than 12 million euro. However, the administrative hurdles for getting money from the Fund are high. Similarly problematic, the Fund does not provide money for individuals; it has so far just given financial aid to legal persons, which again creates a big obstacle for small projects and private initiatives. Financial market is also developing very slowly, commercial banks have not yet developed specific loan facilities for RE and EE. The Fund is supposed to pay 2 percent interest on commercial loans but it has been reported that banks are not accepting the Fund's subsidy. No use of fiscal policy is made and there are no tax exemptions for the RE and EE projects.

The situation in EE has greatly improved during 2012 when new legislation was set up, which removed budgetary restrictions for the use of financial instruments for EE projects in the public sector. Contracting model for energy performance contracting for purchasers of energy services and other energy efficiency improvement measures in the public and private sector has been introduced which open the ESCO market in Croatia. In 2012 created national Retrofitting program

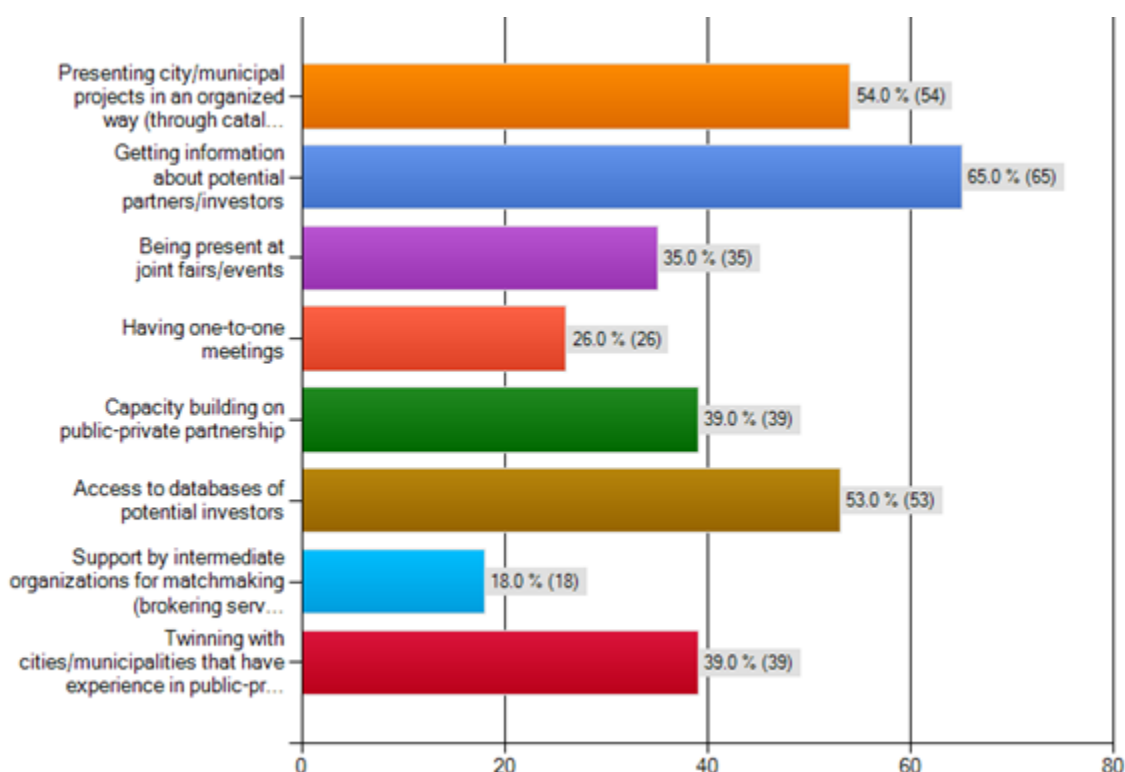
for public sector building was a certain booster for EE developments. The EE market is currently in developing phase, convincing market actors and local governments on the benefits of EE measures and equipment. Jointly with regulatory provisions they are setting up EE policy as priority with establishment of long-term sustainable energy actions plans in EE products and technologies.

However, it is necessary to initiate stronger cooperation with several ministries in order to troubleshoot problems that occur in the realization of EPC projects. There is also a major problem with the public procurement process, which does not comply with the principles of EPC and leaves a very small possibility for implementation of the EPC projects. Public procurement process also slows down the implementation of EE projects. Risk-sharing between the public and private partners is not clearly defined.

Innovation networks or advocacy networks are relatively weak. The academic experts or producers are not united in any cluster of interest. Competition within the pro-RES stakeholder community prevails and the topic is not systematically addressed.

### 2.3.3 Potentials for Using NEXPO2013 as a Matchmaking Platform

#### *Suggested Mechanisms for Improving Cooperation*



#### *Potentials for Establishing Public-Private Partnerships:*

One of the survey questions was related to the extent to which public-private partnerships (PPPs) have been established. The aim was to assess the experience of LGs with this model and their readiness to create new ones. The results are in line with the assessment team's previous findings in the SEE region, that PPPs are not yet significantly accepted as a model: 53.4% of the surveyed

municipalities have never entered any form of PPPs. 48 local governments have reported some sort of partnering arrangements, which cannot be considered as true forms of PPP. Partnership with private sector has been related to preparing projects (27); construction works executed by the private sector (24); some sort of co-financing scheme (13); utilization of public facilities or land by private company owners (9); private management of municipal assets or processes (10) and provision of public services by private companies (19).

During the field visits, a certain amount of reluctance was observed towards PPPs, mainly because of some negative examples<sup>7</sup> from other LGs, or a lack of knowledge about possible contractual arrangements. Serbian local governments tend to complain about a lack of national legislation to regulate this area. The situation is similar in the Federation of BiH. In Republika Srpska, the Law on PPPs was adopted in 2009, but that has not contributed a significant increase in the number of established PPPs. Croatia adopted its new Law on PPP in July 2012 - it brings some significant improvements, including a considerable reduction of time necessary for project document approval (from 180 to 30 days) and better definition of risks. Bulgaria does not have a specific Law on PPPs, but unlike other countries, a number of LGs have adopted local ordinances that regulate PPPs.

NEXPO 2013 should host at least one event – a workshop or discussion board on PPP, with joint participation of the public and private sector representatives. It would also be beneficial to share experiences on successful PPPs, from both perspectives.

Turkey has several examples of successful PPP in the area of production of bio-gas and bio-oil from public landfills. We highly recommended that these examples are presented at NEXPO 2013. The contacts can be obtained from the Union of Marmara Municipalities.

### ***Energy Performance Contracting (ESCO model)***

In Bulgaria, ESCO is regulated at the national level. Some negative experiences have been identified regarding ESCO model implementation (e.g., in Sofia and Pazardjik). ESCO is present in most municipalities - Burgas, Blagoevgrad, Gabrovo, Veliko Tarnovo are good examples. Despite this, a lack of knowledge is still obvious in this area (in the area of contracting ESCO companies, risk sharing, etc.).

The situation in Croatia in EE was greatly improved during 2012 when new legislation was set up, which removed budgetary restrictions for the use of financial instruments for EE projects in the public sector. Energy performance contracting model was introduced for purchasers of energy services, along with some other energy efficiency improvement measures in the public and private sector, which opened the ESCO market in Croatia. In 2012, a national Retrofitting program for public sector building was created, which boosted EE developments. The EE market is currently in developing phase - the benefits of EE measures and equipment are only being introduced. In parallel with regulatory provisions, EE policy is being established, with long-term sustainable energy actions plans in EE products and technologies as a priority.

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<sup>7</sup> Here, it must be stressed out that some projects are just cooperation between public and private sector and are often named as PPP projects. Failure to establish appropriate cooperation frequently causes negative perceptions, with long term consequences.

### **3. RECOMMENDATIONS FOR NEXPO2013 MATCHMAKING PLATFORM**

#### **3.1. Matchmaking Tools and Mechanisms**

A successful matchmaking platform includes a number of activities taking place prior, during and after NEXPO 2013. In such context, NEXPO 2013 is observed as an ongoing activity. This section contains a list of potential Fair activities, with a specific focus on the preparation period:

##### **PRIOR TO NEXPO 2013:**

- Post Catalogues of Municipal Projects and EE/RE companies on NALAS NEXPO 2013 website. Allow possibility to add new projects and company presentations to the Catalogues through an online, log-in application. Create search options by LG/company/key words, so that interested parties can access information on each other.
- Publish data and contacts of all participating LGs and EE/RE companies prior to the Fair.
- Publish tips on preparation for the Fair online (based on the survey results) – for both LGs and the private sector.
- Provide Guidelines on the preparation of successful presentation for investors.
- Provide opportunity to participants to present themselves prior to the Fair: feature one NEXPO 2013 participating LG and one company on the website's cover pager on daily basis. This should be a brief, effective presentation.
- Establish a discussion board on NEXPO 2013 website, to allow prospective participants to start discussion boards and add their opinions on the most important topics.
- Companies expect to be contacted by local governments prior to the Fair, with a specified request for cooperation, partnership, products or services.
- Pre-arranged meetings/appointments for meetings and introductions to people and companies interested in mutual business before the Fair (LG2LG, LG2B, B2LG, B2B).
- Provide option for meeting appointments and meeting room reservations online.
- Provide online tips to municipalities on how to prepare for and hold a meeting with an investor or potential partner from the private sector.
- Provide clear notifications/guides/agendas/venues about all happenings at the Fair.
- Media activities to get as much visitors and providers in EE sector.
- Prepare indicators of NEXPO 2013 success and define a monitoring and evaluation plan.

##### **DURING NEXPO 2013:**

##### **Opportunities for Investment Attraction and B2LG/LG2B Events:**

- Booth presentation
- Meetings with potential investors in EE and RE projects and other areas
- Round tables with business sector representatives
- Focus groups to discuss topics relevant municipal activities
- Round table with private investors
- Video presentations of municipal greenfield and brownfield locations (and opportunities for investments)
- Video presentations of companies (products, services, planned projects)
- Contest for the best municipal presentation for investors
- Workshop on marketing for investment attraction
- Open space forums with investors

**Access to Information on Sources of Funding:**

- Presentations of various sources of funding
- Presentation of donor-funding opportunities (EU funds, bilateral donors, development loans)
- Tips for accessing funds
- Presentations of best practices in accessing funding
- Meetings with donors and other potential sources of funding
- Meetings with donors in specific areas

**Exchange of experience:**

- Presentation of good practice examples
- Organize various knowledge-sharing events (round tables, open space, forums, focus groups, etc.)
- Exchange of experiences between municipalities and businesses; possibilities of common representing several (two or three) municipalities with similar problems and goals
- Joint training events for LGs and the private sector

**EE/RE project presentations of:**

- Local renewable energy sources (studies of potential, natural resources)
- EE municipal projects (reserved time and venue)
- Best practice projects in EE and RE in SEE countries
- Specific projects by EE/RE companies
- EE projects at the County level/intermunicipal projects
- Best products and new technologies in the area of EE
- PPP and ESCO models

**Knowledge sharing through workshops, forums, open spaces on the following topics:**

- PPP
- ESCO
- Integrated approach to EE/RE in the context of sustainable development
- Public procurement
- SEAP preparation
- Energy management
- Investment attraction

**LG2LG Networking and Mayors events:**

- Events related to the promotion of membership in the Covenant of Mayors,
- Joint meetings with other mayors who have signed the Covenant of Mayors,
- Partnering municipalities in neighboring countries for municipal projects,
- Provide new networking solutions, expand networks with other local governments
- Opportunities for Mayors to meet investors

**B2B Networking:**

- Provide opportunities for EE/RE companies to meet each other
- Provide opportunities for large EE/RE investors to meet local SMEs.

## **AFTER NEXPO 2013:**

- Adopt a holistic approach: provide information about LGs and companies prior to the fair, at the fair and after the fair
- Follow-up survey of participants' satisfaction with the fair
- Publish results of the survey on NEXPO 2013 website
- Conduct assessment of the fair's results (after 6-12 months)
- Identify best practices in EE/RE and establish a regular practice to make them accessible to LGs and the private sector.
- Publish news on successful investments and partnerships resulting from NEXPO 2013
- Make NEXPO website a learning platform, with useful information for participants from both sectors, with a possibility to continue interaction after the fair
- Start preparing for the next NEXPO (a preliminary announcement of the next fair should be made at NEXPO 2013)

### **3.2. Best Practices Identified**

#### **3.2.1 Matchmaking Experiences of the Croatian Association of Cities**

Since 2006, the Croatian Association of Cities has been organizing INFO DAYS in cooperation with the Croatian Association of Municipalities and the Croatian Association of Management Consultants. INFO DAYS have gathered 300 participants from local and regional government, state institutions, and the private and non-government sectors.

Plenary sessions have been thematically related to transposition of the EU *acquis communautaire* into Croatian national legislation relevant to the local and regional government operating areas. The exhibition part of INFO DAYS has hosted over 40 consultant and private companies as well as regional development agencies which have presented their programmes, products and services related to increased efficiency and transparency of city and municipality governance. Moreover panel discussions have been organized with key, noted speakers from EU member states and national government organizations focusing on current economic development segments, like implementation energy efficiency policy, communal policy, IT solutions for local self-government units, etc.

However, after three years, it was decided to hand over the organization of INFO DAYS to a newspaper publishing house, *Lider*, due to its organizational complexity. Organization difficulties were associated with balancing between sponsors and exhibitors at the INFO DAYS. Fundraising from sponsors on the one hand and the arrangement of exhibitors on the other hand was a challenging task that required a huge effort of the already insufficient organizational staff numbers to align the desires of sponsors and exhibitors.

Therefore from 2009, *Lider* and the Association of Cities have successfully organized the conference for the fourth year in the row under the name "48 hours for cities mayors and business companies," which is nowadays in Croatia a respectable matchmaking platform conference for cities and private companies. The conference has hosted over its two days more than 200 participants from local government, the private sector and representatives of state institutions, who have discussed how to improve cooperation between business and local government, and to increase the competitiveness of cities as well as the number of investment projects.

The aim of the conference is to set up a dialogue and exchange of experiences among mayors and business owners, to discuss how cities can help to create an entrepreneurial climate, and how entrepreneurs can stimulate the development of local communities. Good opportunities and cooperation with the business community makes a difference between successful and unsuccessful cities. Opening opportunities for sustainable investments in cities directly influences development that provides quality of life to their citizens. These meetings therefore provide a unique opportunity to local government heads and entrepreneurs to find successful models of cooperation in order to jointly create future opportunities.

The two very intense days of the conference offer solutions on how to improve cooperation between business and local government, competitiveness of cities, improve governance and attract investments. The conference includes panel discussions and case studies from Croatian cities and abroad, which can offer practical solutions on business and public sector cooperation.

### **3.2.2 Innovative Projects and Initiatives**

#### **CROATIA: Implementation of sustainable energy management (SEM) in local governments**

Implementation of continuous and systematic energy management in Croatian local governments consists of the following activities:

- Acquisition and verification of all necessary input data on public buildings owned by the cities and municipalities in the Energy Management Information System (EMIS) for the purposes of establishing a verified energy data base of all buildings in the system.
- Establishment of Energy Efficiency Offices - EE Offices in cities and municipalities. This includes establishment of appropriate organisational structures and education of the experts (the EE team) that will support and perform SEM project activities and all other activities needed for achieving strategic goals to increase energy efficiency and environmental protection in cities and municipalities.
- Establishment of the practice of weekly and daily energy consumption analysis and interpretation of energy consumption data, identification of EE measures, energy planning and verification of achieved savings, subsequent to the verified building registry in EMIS.
- Establishment of the practice of active utilisation of the EMIS for energy consumption data collection, analysis and reporting, energy planning and decision making.
- Implementation of the practice of local energy planning, preparation of energy efficiency plans and programs as defined by law and identification and implementation of EE measures.
- Techno-economic analysis of EE measures, verification of achieved savings (analysis and definition of base and target consumption, verification of savings and identification of corrective measures for energy efficiency improvement).

Improvement activities of SEM are continuous, implemented as an integral part of the above mentioned activities and include promotion of local governments' strategic development documents. Besides SEM activities, strategic documents need to include development and utilisation of network infrastructures that will improve economical, energetic and political efficiency in managing and use of public services and local resources. In this way a foundation for integrated management of all resources and public services in local government will be established, which directly promotes installation of sophisticated systems for collecting and processing of the necessary data which finally leads to the concept of "Smart Cities".

Implemented activities in Croatia have resulted in the establishment of the verified building registry - Energy Management Information System (EMIS) - with all necessary data related to implementation and training of the EE teams responsible for energy management in local and regional self-government units. In the last 4 years, EE offices and EE teams have been established in all 20 counties and 93 cities in Croatia.

#### **CROATIA: Establishment of the Energy Efficiency Office – the EE Office**

In Croatia, there is a new initiative to establish EE Offices within the local government structure, as a separate department, with 2 employees on average. In order to make them an efficient part of the local administration, certain activities need to be implemented, such as education of employees in local government in the field of implementation of the process of centralized and “green” public procurement, introduction of economic and technical criteria of energy efficiency in tender documents, use of available norms during technical specification preparation, production of detailed analysis and Life Cycle Cost Assessment (LCCA) of products and services in the process of public procurement.

#### **CROATIA: Sustainable Energy Action Planning (SEAP) in Cities and Municipalities**

Local energy planning and reporting has been established, including defining action plans and the strategic steps for implementation of EE measures (SEAP), defining critical energy complexes in local and regional government and establishing implementation plans for corrective EE measures.

Educational and interactive workshops have been organized that focus on systematic energy management, energy and water usage analysis, and interpretation of results and verification of achieved savings. Additionally, the organisation of an interactive workshop focused on connecting the methodology of energy analysis, data interpretation, energy management and EMIS, with the goal of facilitation of usage of EMIS as a tool for systematic energy management and energy analysis.

Continuous educational workshops in municipalities and cities have been provided with the aim of training all groups that are directly or indirectly involved in systematic energy management (like EE offices, development agencies, and responsible persons in cities and municipalities) to facilitate the process of implementation of obligations imposed by the law, increase capacity for implementation of building energy audits, and preparation and execution of measures to improve energy efficiency.

**Energy Planning aims to promote and foster development of energy efficiency improvement action plans in all 20 counties and 93 cities in Croatia.**

#### **CROATIA: Energy Management Information System (EMIS) in Cities and Municipalities**

A Central Energy Management Information System (hereinafter EMIS) has been established - an internet application for supervision and analysis of energy and water consumption in public sector buildings. For the successful implementation of EMIS in local government structures, employees working with EMIS need to be properly educated and local governments need to take it seriously. Continuous and systematic operation of EMIS in local governments consists of the following activities:

- Advanced education of the EE teams in local governments so that they would be able to manage

and update data in EMIS independently, and also to perform analysis and educate end users in buildings for data input.

- Local management and use of application (data analysis through the application and preparation of different reports).
- Analysis of local and individual energy efficiency indicators using EMIS.
- Technical support to local administrators and users of EMIS.
- EMIS Software and Hardware maintenance support.
- Database maintenance and regular safety data backup.
- Upgrade of the application regarding new needs and requirements.
- Adjustment of the application according to changes in legislation.
- Adjustment of the application to work with other related IT systems.
- Enabling EMIS to connect with other existing information systems in order to coordinate activities.

In Croatia, EMIS is fully integrated as a central information system for gathering and analysis of data about energy consumption in public buildings owned by national, regional and local governments. Currently EMIS provides data for over 7.000 buildings from all 20 counties and 93 cities in Croatia. More than 2400 buildings owned or used by the cities and counties have established the practice of regular energy cost control through bill auditing.

#### **SERBIA: Serbian Network of Energy Managers (MEMS)**

Serbian Network of Energy Managers (MEMS) was initiated by the Central European Forum for Development (CEDEF), with the support of key Government institutions. The MEMS is an important step towards establishing an adequate energy management function in Serbian cities and municipalities, public enterprises, but also industry. Various educational programs and events are organized for energy managers throughout the year. Awareness-raising campaigns and various EE/RE-related publications are also provided.

### **3.2.3 Best Practices of Public Private Partnerships and Private Sector Initiatives in the Area of EE and RE**

#### **BULGARIA: Energy Efficiency and Renewable Sources Fund**

The **Energy Efficiency and Renewable Sources Fund (EERSF)** was established through the Energy Efficiency Act adopted by the Bulgarian Parliament in February 2004. The initial capitalization of EERSF is entirely with grant funds, its major donors being: the Global Environment Facility through the International Bank for Reconstruction and Development (the World Bank) - USD 10 million; the Government of Austria - Euro 1.5 million; the Government of Bulgaria - Euro 1.5 million and several private Bulgarian companies. EERSF is one of the most successful examples in the region.

EERSF has the combined capacity of a **lending institution**, a **credit guarantee facility** and a **consulting company**. It provides technical assistance to Bulgarian enterprises, municipalities and private individuals in developing energy efficiency investment projects and then assists their financing, co-financing or plays the role of guarantor in front of other financing institutions.

The underlying principle of EERSF's operations is a **public-private partnership**. The Fund pursues

an agenda fully supported by the Government of Bulgaria, but it is structured as an independent legal entity, separate from any governmental, municipal and private agency or institution.

To date, 143 loans were provided through this facility, amounting to 39.8 million EUR. 79 loans were received by Bulgarian local governments-

#### **BULGARIA: Integrated System for Monitoring Energy Consumption and Savings**

Bulgarian Company Enersyst ([www.enersyst.com](http://www.enersyst.com)) has a long track record of cooperation with local governments across Bulgaria. The company advocates for, and applies an “integrated approach to EE/RE”, based on policy and strategy coordination at the local level and observance of a need to reduce energy consumption as a cross-cutting issue at all levels and sectors. A remote monitoring system of energy consumption and savings that this company has developed brings all energy consumers together and allows integrated data collection in real time. Such a model is now being introduced in the Municipality of Pernik – public buildings, lighting and transport consumption will be measured remotely, on daily basis. Such a monitoring system can also be considered as a planning tool, as it provides feedback on where the issues are, what areas need to be improved and what news solutions, interventions and projects need to be designed, in order to further reduce energy consumption and bring it closer to a desired level.

#### **SLOVENIA: Central Heating on (Wood) Biomass in the Municipality of Semič**

In the Municipality of Semič, Slovenia, the company ZARJA EKOENERGIJA (ZARJA KOVIS, Kamnik) has installed a central heating system and system for preparation of hot water which uses biomass as fuel. The project was funded under the Operational Programme of Environmental and Transport Infrastructure. Funds were obtained from the Cohesion Fund in the amount of 50% of eligible costs (the EU share 85% and 15% share of Slovenia). Heating system with renewable energy sources is placed in the local area which potentially covers 1,200 households in the municipality Semič and offers an environmentally friendly source of energy.

Central heating system Semič is a modern facility, which provides a clean, reliable and economical source of heat. The system consists of a central boiler, heat distribution systems – special pipes and units for heating and hot water which are installed in public buildings. The boiler room consists of two boilers (wood chips) that have power 1850 kW. Hot water storage tank, which gives the final power 2200 kW is used for reliable heat supply and power reserve.

The energy-generating product is natural wood biomass, which ensures that local forest owners who produce wood waste are involved in the supply chain. The Operator intends to include as many private users from the municipality as possible into the central heating system. The Operator also has an obligation to reduce energy consumption for a minimum of 10%.

The project has certainly been challenging in terms of building systems and logistics, as it covers the area of the entire municipality. The preparation took about 1 year, and the construction about 7 months. Most of the investments referred to the central boiler system. The system is currently connected to 40 consumers, including all major municipal facilities and also private users, who have opted to take advantage of technologically sophisticated and clean biomass heating systems. The project is of great importance for the whole community.

### **SERBIA: Establishment of *Pirot Energy* – Company for Mini-Hydro Power Plant Construction**

Municipality of Pirot, company “Tigar” and Italian company “Dekotra” have established joint company “Pirot Energy” for the construction of mini hydro power plants, in response to the needs for PPP in this area. Pirot has significant hydro power potentials and t. 58 locations have been identified by the Ministry of Energy, Development and Environment and the LG. 43 out of the 58 locations are in the Nature Park “Stara Planina”, for which the Ministry needs to issue the permits. The rest of permits will be issued by municipalities.

### **SERBIA: Demonstration of Biomass Production Process for Kamena Gora Citizens**

On September 15, 2012, the company *Jela Star* d.o.o. from Prijepolje demonstrated the process of biomass production from wood waste on Kamena Gora. The presentation was attended by approximately 50 inhabitants of Kamena Gora, wood owners from Majdanpek and Bor and members of civil society organizations interested in this topic.

### **SERBIA: The City of Vranje Partners its Private Sector for Pellet Production**

The City of Vranje has established excellent cooperation with company SIMPO on pellet production. It also hosts and supports a private investor of pellet and briquette production in the Business Incubator Centre.

## **3.2.4 Best Practices in Promotion and Awareness-Raising about Energy Efficiency and Renewable Energy**

### **CROATIA: Establishment of EE Info Points**

EE Info Points are operated by local and regional governments and serve as places for local promotional and public information activities for different target groups and the general public, such as: EE info days, thematic workshops, educative lectures, etc.

To date, **112 EE Info Points in 47 cities and 12 counties in Croatia have been established.** Annually, 30 different info-educational events are organised aiming to raise awareness, inform and educate citizens, along with 20 EE „think of tomorrow “school lectures in primary schools. Moreover, they are implementing regular studies on citizens’ awareness on energy efficiency and the availability of energy efficient products on the market.

### **SERBIA: National Zero Emission Network**

The National Zero Emission Network in Serbia was founded on October 4, 2010 in Čačak, under the patronage of the Ministry of the Environment, Mining and Spatial Planning. The Network was initiated in December 2008 by Dragana Oberst, founder of the Technology Transfer Centre South-Eastern Europe, Germany, within the framework of the One-Hundred German-Serbian Success Stories project, under the patronage of the President of the Republic of Serbia.

The national Network was developed according to the model of the Zero Emission Network of the Federal Republic of Germany, owing to the substantial support of its coordinators, the Institute for Applied Material Flow Management (IfaS) from Birkenfeld, and the Government of the Federal State of Rhineland-Palatinate (Rheinland-Pfalz).

The Serbian Zero Emission Network is the first of its kind in South-Eastern Europe and - after the abovementioned one which was founded in the Federal Republic of Germany - among the first national Networks worldwide. It was established as a non-government, non-profit association, registered in Čačak. The City of Čačak has been providing important logistics and manpower support during the initial period and throughout the first year after the Network's establishment. Apart from the important scientific support provided primarily by the University of Belgrade (Faculty of Technology and Metallurgy) and University of Novi Sad (Faculty of Technology), an increasing number of cities, municipalities, scientific and educational institutions, development agencies, governmental and non-governmental organisations and citizens are joining the Network and actively contributing to its development.

#### **MONTENEGRO: Info Offices for Energy Efficiency**

Info offices for energy efficiency in Montenegro were opened in cooperation with the Directorate for Development of Small and Medium Sized Enterprises and GIZ. The main idea of this project is promotion of energy efficiency in Montenegrin municipalities through the existing network of business centers at disposal of the Directorate for Development of Small and Medium Sized Enterprises. Seven info offices for energy efficiency were opened within the existing Regional business centers (**Niksic, Berane, Cetinje, Bijelo Polje, Zabljak, Plav and Rozaje**) as a part of the previous cooperation (the following pictures are from Bijelo Polje and Cetinje).

Employees in these info offices are trained by GIZ to provide information on energy efficiency measures to small and medium sized enterprises and to citizens of the above mentioned 7 cities. Several round tables related to energy efficiency were organized in these cities.

#### **BULGARIA: Best Practices –Manage Energy Award and Publication of Best Practices**

The Association of Bulgarian Energy Agency Plovdiv has a very resourceful website, where it publishes very useful information in the area of EE/RE for various target groups. It also posts annual brochures with good practices in this area, following the Manage Energy Award contest.

Ms Liyana Adjarova, the Executive Director is a great supporter of RE projects. She would be willing to present their experiences and current efforts in promoting biomass use.

ManagEnergy annually rewards some of the most outstanding energy actions at the local and regional level with the **ManagEnergy Local Energy Action Award**. The main objective of the award is to acknowledge cases of good practice for their significant contribution to the promotion of energy efficiency and/or renewable energy use and for their strong potential for replication. The recognised projects are selected by a jury from the case studies submitted through an annual call. The most outstanding projects are promoted on the website as ManagEnergy good practice and are included in the [ManagEnergy Good Practice Brochure](#).

#### **BULGARIA: Black Sea Regional Agency for Energy Management (BSRAEM) – SEAP Support and Outstanding EU Project Preparation Capacities**

The Black Sea Regional Agency for Energy Management was founded by the Union of Bulgarian Black Sea Local Authorities (UBBSLA). The UBBSLA cities and municipalities are among the most committed members of the Covenant of Mayors. So far, the BSRAEM has supported more than 20 municipalities in SEAP preparation. It is also one of the most successful energy agencies in Bulgaria in terms of projects won through various EU-funds for EE, including the Intelligent Energy Europe

(ELENA), the Kozlodui fund, the FP7 facility, etc. Mrs Mariana Kancheva, the Chair of the Managing Board of the Agency, the lead of these efforts has expressed interest in holding a workshop, or another event at the Fair, to present SEAP concepts, methodology and challenges, as well as their experiences with EU-funded projects.

### 3.2.5 Replicable EE/RE Projects and Models

#### **CROATIA: Educational Modules for the Public Sector Related to Systemic Energy Management (SEM)**

Various educational modules for the local governments' public sector need to be developed to include the following target groups:

- Mayors, district prefects, heads of the economy, finance, planning, energy, environment and utility services departments.
- Expert staff in various city and county institutions (engineers, technical staff).
- Technical staff in buildings (administrators, superintendents).
- EE teams and future EE teams.
- All employees.

The educational modules for the local governments' public sector can include:

- Introduction to Systematic energy management (SEM), goals, activities, purpose and obligations for authorized persons of all levels of responsibility, the purpose and obligations of the users with an emphasis on the Building registry including a module on Building registry establishment and an introduction to EMIS intended for all beneficiaries at the technical level,
- EMIS training to enable beneficiaries responsible for buildings in the public sector (such as technical staff in hospitals, administration personnel required for data entry, etc.) to use EMIS, enter data and monitor energy consumption which ensures early detection of problems and irregularities.
- A one-day course for technical personnel at the building level intended for building administrators and technical staff (superintendents) aiming to increase technical capacities for quality building maintenance and recommending investments for EE measures to authorized persons. The course consists of 4 technical units covering these topics: building envelopes, renewable energy sources, electricity and HVAC systems.
- An energy advisor course to ensure quality advice to citizens. It is intended for future advisors in the EE centres as well as public administration employees, and technical personnel who will propose investments or other measures for improving energy efficiency in their institutions. The course should include the following topics:
  - Thermal building protection.
  - Heating, ventilation and cooling.
  - Renewable energy sources in buildings.
  - Building energy audits
  - Economics in energy.
  - Communication skills.
- The EE Office workshop for all employees and EE Office managers, to raise awareness and motivation for responsible behaviour in the office.
- The EE Office Public Procurement workshop, to educate personnel in public procurement (cities, counties, departments for procurement and finance) on how to discover ways and fields in which green and sustainable criteria can be introduced.

In order to achieve the complex implementation of a systematic energy management (SEM) process, it is still necessary to actively support and encourage cities and municipalities to start or to continue with the implementation of systematic energy management (SEM) activities.

The following workshops are annually organized in Croatia: seminars, round-tables, Info days and other Info-educational and promotional events in cooperation with local self-government units:

- Implementation of at least 2 courses for EE advisers.
- Implementation of 5 to 10 EMIS basic workshops for the EE team,
- Implementation of 10 to 15 EMIS basic workshops for beneficiaries,
- Implementation of up to 30 advanced EMIS workshops.
- Implementation of up to 10 workshops about the methodology of analysis and interpretation of energy consumption and key laws and regulations
- Supporting EE teams in organizing Motivation and Awareness workshops for EE Offices.

### **Retrofits through Local Energy Service Company (ESCO)**

The best way to implement a Building Retrofit Program on a local area is to establish an ESCO owned by the local authority and acting as an implementing body. This is the most suitable model where the ESCO's function is focused upon matters of social, economic or environmental well being, and where commercial considerations of making profit are secondary. Energy reconstruction of buildings is, thus, carried out in buildings owned by local governments, particularly hospitals, health centers, schools, kindergartens and administrative buildings, and in residential buildings - private houses and multistory buildings, in cooperation with the building manager. Energy efficiency improvement measures that should be implemented include:

- Replacement of indoor lighting
- Replacement of existing and installation of new energy efficient exterior doors
- Installation of thermal insulation and roofing membrane
- Installation condensing boilers and renovation of existing chimneys
- Replacement of oil boilers with gas and biomass boilers
- Installation of thermostatic valves
- Installation of solar thermal systems for domestic hot water preparation
- Installation of heat pumps in heating systems

With the local ESCO, obstacles in applying the ESCO model contracting through an *energy performance contract* would be removed, such as:

- Long contracting period for large energy building renovation requires favorable financing sources,
- Insufficient number of companies specialized in the provision of energy services, dependence on the ESCO market development,
- Lack of financial sources for commercial ESCO companies at the market,
- Lack of experience of financial institutions in financing energy efficiency projects.

Also, the local ESCO allows application of smaller-scale energy efficient measures to the refurbishment of buildings that are not cost-effective, but require financing and buildings that are culturally protected monuments or listed in a historically protected zone.

Energy Performance Contracting can account for the refurbishment of more than 50 buildings annually, with a total area of over 200,000 m<sup>2</sup>, which would:

- Decrease energy expenditure by 60%,
- Reduce CO2 emissions by 5,000 tons per year,
- Launch an investment of approximately 40 million euro annually.

### **CROATIA: Construction of Low-energy Apartments as a Social Housing Model**

Responsible use of natural resources is now an imperative that must be met at all levels, from individual, through organizations, local communities and the state, to international and global community. But responsibility first of all must be initiated at the local level, because it is the closest to the people, and has greater impact on their personal choices and behavior models. Therefore, the activities must be primarily focused on sustainable urban planning and land use, energy efficiency, renewable energy, efficient water use, sustainable waste water management, sustainable transport and the consequent reduction in greenhouse gas emissions.

Low energy dwellings meet the need for housing of young families, poorer and disadvantaged populations, who stand out as the main development priorities and challenges. Over 20% of the population in the cities faces such a challenge today. Such a solution also delivers an answer to the demographic problem of population decline, particularly those of working age. A lack of adequate housing and development opportunities related to education is reflected in a decreased population level in the past decade in most cities across Croatia. Therefore, cities must focus its development concept on offering a higher quality of life.

Construction of low-energy apartments as a social housing model starts in partnership with the city; city subsidized housing agency and the private sector. The aim is to build a residential building in which the a square meter of living space costs less than a thousand euros per m2 of net usable area, along with high energy efficiency standards. The city should abolish local fees in this building, and help its successful implementation in that way. Also, the city provides mortgage guarantees to prospective tenants with banks, taking into account the financial constraints of young people and other vulnerable groups of citizens. This partnership model has shown that low-energy buildings do not need to be more expensive than traditional buildings, and thus eliminates the bias of the high initial cost of energy-efficient construction.

The City of Koprivnica in Croatia has decided to build a "green neighborhood" with low-energy residential buildings as a demonstrative example of sustainable local development. The first "green neighborhood" buildings were built in the period from 2010 to 2012. The first two low-energy buildings, out of seven planned, have the highest energy class - A + (passive house) as a residential building with 28 apartments. They include the first passive house in Croatia, and also the first passive buildings constructed on the model of state-subsidized housing scheme. The housing price per 1m2 is 1,000 euros. Funding for housing construction Agency is obtained under the provisions of the Act on Subsidized Residential Construction and the project is carried out in close cooperation with local designers and contractors. The City of Koprivnica has given up the collection of municipal fee in 100% of the amount. An average low energy apartment (60 m2) has a total monthly cost for heating and cooling between 50 and 60 euros, while the total cost (including the consumed water, cooking gas and electricity) is around 100 euros, which is a proof of an exceptionally high quality and saving housing. Built apartments were sold instantly and the City is currently developing new ones. <http://udruga-gradova.hr/Default.aspx?art=372> (A similar larger-scale initiative exists in Stockholm – "Green City" in the settlement [Hammarby Sjöstad](#)).

#### **4. CONCLUSIONS**

The needs assessment study has provided a solid overview on the municipal status, capacities and needs, as well as information on the companies operating in SEE region in the area of EE/RE. The study is particularly valuable in the sense that it provides a comparative analysis of the demand and supply of local governments, with that of the private sector, which serves as a basis for defining the matchmaking platform for the International Municipal Fair NEXPO 2013.

An important outcome of this study is an overview of the local governments planned projects in the area of energy efficiency and renewable energy use. The projects compiled in a Catalogue form will hopefully be attractive to potential investors in this area. On the other hand, LGs will have an opportunity to access an extensive register of EE/RE companies in the SEE region, as well as to get informed about their products and services through the Catalogue to be issued by NALAS.

The study provides both local governments' and the private sector's perspectives on some key challenges issues and obstacles to investments and establishment of partnerships. It identifies what local governments need to improve, in order to be more successful in investment attraction.

Based on the findings, possibilities for matchmaking have been identified and some suggestions for a matchmaking platform were provided.

This study is very important as a rare example of an in-depth assessment conducted prior to a local government fair. In that sense, it can serve as an example to other organizers of similar events who would be interested in learning about the steps that need to be taken in order to ensure its successful organization, as well as tangible results measured by the number of investments attracted and public private partnerships established in the participating local governments.