Green Partnerships

Step-by-Step Guide

LOCAL PARTNERSHIPS FOR GREENER CITIES AND REGIONS

Practical Guide for Implementing Effective Local Energy Action Plans

med
L'Europe en Méditerranée
Europe in the Mediterranean

Projet cofinancé par le Fonds Européen de Développement Régional (FEDER)
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IMPRESSUM

Local Partnerships for Greener Cities and Regions
Practical Guide for Implementing Effective Local Energy Action Plans

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IMPRESSUM

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Energy agency of Podravje - Institution for Sustainable Energy Use	Kyoto Club
GERES - Group for the Environment, Renewable Energy and Solidarity	Lakatamia Municipality
Granollers city council	Lead Partner: Slovene Chamber of Agriculture and Forestry - Institute of Agriculture and Forestry Maribor
Hydro Engineering Institute Sarajevo	Technical University of Crete, Renewable and Sustainable Energy Systems Laboratory

INDEX

1. Foreword 06

2. Starting point 08
2.1. Challenges and opportunities of RES and EE sector for local communities 08
2.2. Top Down versus Bottom up Approach - underlying the Green Partnerships Approach 09

3. How to use the guide 09
3.1. Step By Step to Achieve the SEAP Goals - Green Partnerships Approach 10

4.STEP 1 - Choosing a problem 12
4.1. Where to start 12
4.2. Energy needs 13
4.3. Impact on the local economy 14
4.4. Implementation possibilities 15
4.5. Impact on the promotion of EE and RES 16

5. STEP 2 – Creating local action group (LAG) 17
5.1. Why a LAG? 17
5.2. The LAG's role and objectives 18
5.3. Form a competent LAG 20
5.4. LAG operation – Consultation process 23
5.5. Consultation / Discussion Topics 23
5.6. Motivation and engagement of LAG members 23
5.7. The Green Partnerships experience 24

6. STEP 3 - Local action plan 27
6.1. Think global act local 27
6.2. Implementing the local energy strategy – How to put in practice the LSEAP 28
6.2.1 Defining the project 28
6.2.2 Learn from others 29
6.2.3 Assess local potential 29
6.2.4 Evaluate alternative solutions 29
6.2.5 Quantify targets 30
6.2.6 Take action 30
6.2.7 The Green Partnerships experience 31

7. STEP 4 - Empower Policies & Local Skills 38
7.1 Key components of capacity building workshops and training activities 38

8. STEP 5 - Creating Local Partnership (s) 40
8.1. Creating Local Partnership 40
8.2. What is a good partnership? 40
8.3. Dividing roles 40
8.4. Funding opportunities 41

INDEX

9. STEP 6 - Implementation procedures 42
9.1. Starting points 42
9.2. Lobbying and documentation 42
9.3. Procurements procedures 43

10. STEP 7 - Monitoring and evaluation 44
10.1.Why do we need evaluation and monitoring activities in RES and EE projects? 44
10.2.PESTLE method 46

11. STEP 8 - Awareness raising: Promotion, communication and dissemination 48
11.1. Awareness raising is also presenting opportunities 48
11.2. Delivery tools for awareness raising activities 49

12. Annexes: 52
Annex 1: Training materials 52
Annex 2: Public private partnership agreement template 58

1. FOREWORD

There is increasing evidence that human activities are affecting Earth system functioning to a degree that threatens the resilience of our planet. Human influence on the climate system is clear and the atmospheric concentrations of greenhouse gases (GHG) are now well above the maximum observed at any time during the Holocene. Global temperature has risen by nearly 0.7°C since 1950, mostly due to CO_2 emissions from fossil fuel use. Climate changes already have widespread impacts on human and natural systems. Continued emission of GHG will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems. Assets and business activity will be affected by rising temperatures, more frequent weather extremes, and sea-level rise. Climate change can increase existing vulnerabilities and deepen socio economic imbalances also in Europe. Central and eastern Europe together with Mediterranean region have been subject to major impacts over recent decades as a result of decreased precipitation and increased temperature, and these are expected to worsen as the climate continues to change. European cities are also exposed to different climate change impacts such as heat waves, flooding and droughts. In the future, on-going urban land take, growth and concentration of population in cities, and an aging population, contribute to increase further the vulnerability of cities to climate change.

There are multiple mitigation pathways that are likely to limit warming to below 2°C relative to pre-industrial levels. These pathways would require substantial emissions reductions over the next few decades. But implementing such reductions poses substantial technological, economic, social and institutional challenges. Limiting climate change requires that CO_2 emissions must decrease, soon and sharply. We have to be aware that climate change, energy security and economic stability are tightly linked. Unfortunately energy demand is still increasing globally, causing GHG emissions from the energy sector also to increase. The trend is set to continue, driven primarily by economic growth and the rising population. Climate change presents increasing challenges for energy production and transmission. A progressive temperature increase, an increasing number and severity of extreme weather events and changing precipitation patterns will affect energy production and delivery.

Significant cuts in GHG emissions from energy can be achieved through a variety of measures. These include switching to lower-carbon fuels (for example from coal to gas), improving energy efficiency in transmission and distribution, increasing use of renewable energy sources (RES) and reducing final energy demand. On regional level the main mitigation options in the energy supply sector are energy efficiency improvements, increased use of RES and switching from fossil fuels with high specific GHG emissions (e. g., coal) to those with lower ones (e. g., natural gas). There is an increasing body of work showing that the implementation of energy mitigation options can lead to a range of socio-economic co-benefits for, e. g., employment, energy security and health improvements through reduced air and water pollution. Especially demand reduction in energy end-use sectors is not only the key strategy for mitigation but can also help to achieve wider sustainability objectives. Limiting energy demand has many benefits, including the ability to maintain a wide portfolio of energy technologies and increasing the cost-effectiveness of the transition. That means that strengthening the implementation of local public policies and strategies related to energy efficiency (EE) for sustainable local and regional development is extremely important.

In practice local communities have important role in addressing and implementing the goals for increased EE and promotion of RES. Unfortunately smaller local communities often lack the capacity to even tackle climate change mitigation challenge. Therefore timely and effective implementation depends on policies and cooperation at all scales. Projects that establish sector complementary partnerships, which are supported by project logics, present a sound approach. They help to enable all partners to benefit from their experiences in the RES and EE sector so far. Furthermore they can establish a platform for expert support at transnational level, establishing local stakeholders

initiatives, increase their capacity for planning and implementation of the RES and EE projects. For such projects it is vitally important that stakeholders from different sectors can complementary contribute to the identification of potential for RES and EE implementation by working together by sharing experience, knowledge and exchanging good practices.

Prof. Lučka Kajfež Bogataj
University of Ljubljana
Biotechnical Faculty

2. STARTING POINT

2.1. Challenges and opportunities of RES and EE sector for local communities

Development trends are fast changing and local communities are becoming open to foreign markets and influences; offering development opportunities on one hand and challenges to overcome in making good of these opportunities on the other hand. Innovative approaches to identify develop and implement economically and environmentally sound RES and EE projects with positive social impact are needed yet sometimes level of competences of different stakeholders that should be included in these projects is insufficient and many opportunities are not exploited and sometimes not even recognized. One of the cases is the actual implementation of SEAP documents, focusing on RES and EE projects to be important generator of socio-economic development.

Being able to implement these projects in a holistic way, considering not only technological aspects but also their socio-economic impact in the local environment is a challenge that many local communities are struggling to do and are therefore missing on important development opportunities.

As Lead Partner of the project we recognized the opportunity of the RES and EE sector as opportunities for local communities to take full advantage of the technological aspect of RES and EE projects and their potential for socio-economic development. **We recognized the potential of the RES and EE sectors of being a cross-sector development opportunities meaning that stakeholders from different sectors could complementary contribute to the identification of potential for RES and EE projects and their implementation by working together.**

In order to be able to do this, experience, knowledge and exchange of good practices is needed from as broad of environments as possible and international cooperation between stakeholders adds an important new dimension of achieving know-how, exchange of good practice examples and complement approaches and methods in business development that can be transferable throughout the EU. **Smaller local communities often lack the capacity to even tackle this challenge therefore a sector complementary partnership was established supported by a project logics that would enable all partners to cross-benefit from their experiences in the RES and EE sector so far, establishing a platform for expert support at transnational level (Expert Working Groups), establishing local stakeholders initiatives (Local Action Groups), increase their capacity for planning and implementation of the RES and EE projects with stressed socio-economic component and by reviewing the planned and implemented pilot action review and upgrade the Green Partnership approach and summarize it in this Step by Step Guide.**

2.2.The Green Partneships Approach - Bottom up Approach versus Top down

Green Partnerships Approach (GPA) was designed to answer to the challenge - **How to efficiently and effectively implement RES and EE projects defined in SEAP and make SEAP a reality.** GPA followed the principle of bottom up approach development process which deviates from the common top down approach as demonstrated in picture 1.

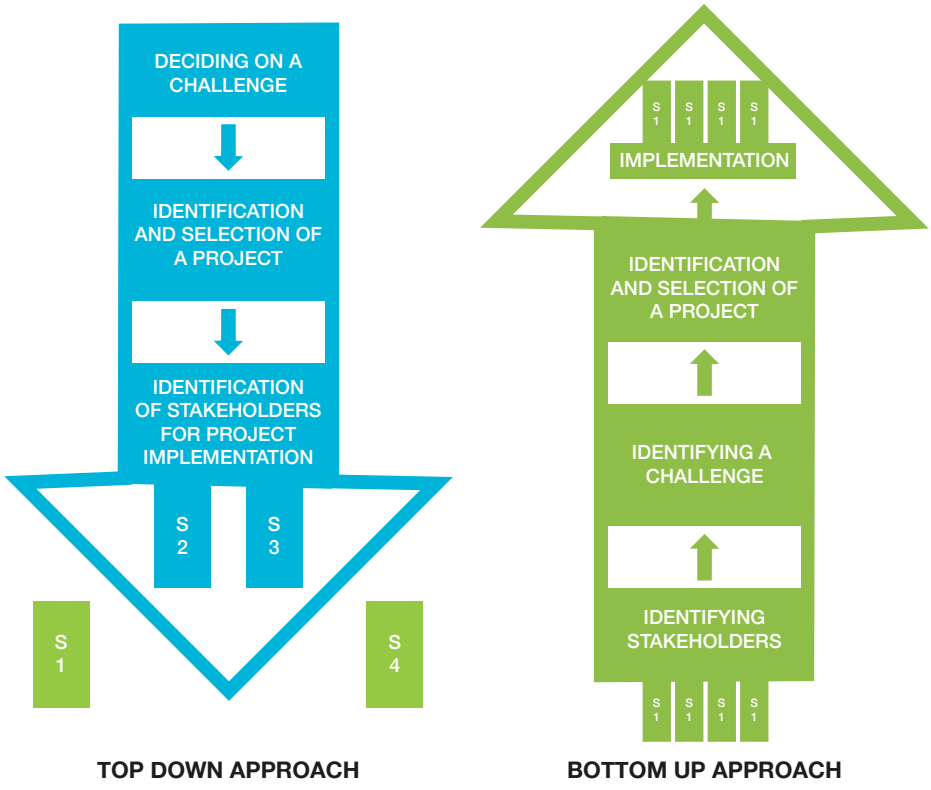


Figure 1 Top Down vs Bottom up approach (S1, S2, S3, S4 represent relevant stakeholders)

Main difference in the two approaches is in how we decide what we are going to do and how and how deep into the planning, identification, development and implementation process are we going to include the stakeholders. With the top down approach we try to fit the project into the environment as is and stakeholders are more or less informed about it whereas with the bottom up approach stakeholders have a say and co-develop the projects in all of its aspects while preserving the original goal. This adds to the final impact of the project, benefits to stakeholders are more concrete and as a very important fact, by including stakeholders into the identification, development and implementation phase of projects, stakeholders contribute with their know-how, experience, identify themselves with the project more and provide for better acceptance of the project in the local environment. Time and money invested in bottom up approach repays in form of less opposition in implementation phase, better socio-economic impact of the project and also important, builds trust and opens opportunities that cannot be identified without stakeholders participation.

3. HOW TO USE THE GUIDE

This guide is developed to simplify the identification, development and implementation of RES and EE projects for better impact in local environments. It cannot and does not foresee every eventuality; it aims to present a coherent process and planning logics, defines crucial milestones in the process that need to be elaborated and methods and principles on how to do it. The main message of the Green Partnerships Approach is participatory / co-development approach supporting the argument that when addressing a horizontal theme such as RES and EE in local communities that affect stakeholders, their involvement must be a part of the whole process. How to make the most of this approach is the content of this Step by Step Guide.

In the following chapters, the main steps of the Green Partnerships Approach will be presented, explained and the interactions between different steps will be shown. By each step of the process main challenges to overcome will be identified and methods and principles in support of reaching them will be presented.

In support of the Step by Step Guide is the Green Partnerships Final Publication where pilot cases from all 11 participating countries are presented together with further reports on transnational and national/local activities in implementing the 7 Steps of the Green Partnerships Approach. All documents can be downloaded from the project's webpage, where extensive training materials and public library may also be accessed. Visit us on: **www.greenpartnerships.eu**

CHALLENGE	STEPS	RESULTS
	Step 1 - Choosing a problem	
Choosing a project that contributes most to the local community.	Analyze: energy needs, impact on the local economy, implementation possibilities, impact on the promotion of RES and EE	Identify: energy savings, green business opportunities, local value added chains
	Step 2 - Creating local action group (LAG)	
Identify stakeholders that can contribute to the planning and implementation of the project.	Organize: stakeholders consultations and exchanges, specify projects area of intervention - objectives, empower stakeholders to project implementation	Relevant stakeholders connected into LAG.
	Step 3 - Local action plan	
Summarizing input from stakeholder participation (LAG) in support of project definition into a local Action Plan	Define, quantify and make projections for: technical potential, socio - economic potential, stakeholders and their responsibilities	Local Action Plan developed and approved by stakeholders.
	Step 4 - Empower policies & local skills	
Capacity building and awareness raising as a mean to empower local communities to enhance energy efficiency and renewable energy best practices.	Assess Capacity needs and assets in local level. Form a capacity building plan, Develop/Adopt appropriate tools and materials. Implement targeted capacity building activities.	Capacity building workshops aiming at Regional and local policy makers, municipal technical staff, energy/ maintenance manager of municipalities were implemented. Training material available for future use is prepared. New knowledge was gained, improved competence and capacity to decision makers and technical actors.
	Step 5 - Creating local partnerships	
Developing a partnership committed to the implementation of the project.	Assign: specific tasks. Confirm: a detailed financial plan. Look for similar initiatives and opportunities.	Implementation partnership formed with clear obligations and responsibilities.
	Step 6- Implementation procedures	
Putting ideas into reality by following the necessary procedures	Provide for all necessary support documentation. Plan for sufficient time in implementation phase, problem solving procedures.	Implementation plan prepared and beginning of project activities implementation.
	Step 7 - Monitoring and evaluation	
Observe and predict possible hindrances in project implementation, improving the implementation process and gain input for future planning.	Implement the monitoring process and use the information as input for other respective steps when planning for another project.	Improvement of the implementation procedure and input for future projects planning.
	Step 8 - Awareness raising: Promotion, communication and dissemination	
Promote achievements and positive impacts of implemented projects to expert and wider public.	Develop a comprehensive Communication and awareness raising document and capacity building activities.	Communication and awareness raising document in support of RES and EE project as important drivers of local development.

4. STEP 1 - CHOOSING A PROBLEM

Which RES and EE projects will deliver most positive effects for local communities?

4.1. Where to start.

Identification of energy needs on one hand and strategic development initiatives at EU level on the other hand must be seen as business development opportunities, connecting stakeholders who can provide know-how, technologies, investment money and complementary use of implemented technologies into local value added chains.

A Sustainable Energy Action Plan (SEAP) is the key document in which the Covenant signatory outlines how it intends to reach its CO_2 reduction target by 2020. It defines the activities and measures set up to achieve the targets, together with time frames and assigned responsibilities. Covenant signatories are free to choose the format of their SEAP, as long as it is in line with the general principles set out in the Covenant SEAP guidelines.
SEAP, in some countries Local energy plan or a part of urban plan defines the following issues:

- Objective (s) and Targets
- Current framework and vision for the future
- Organizational and financial aspects:

In some (non EU) countries, the energy targets are not ambitious and are limited with the public infrastructure, reconstructions and renewing plans etc. Focusing on public buildings helps by identifying and monitoring of energy consumption. In every country or region, the high energy consumption burdens the state budget, furthermore the high energy dependency decrease the competitiveness of the state.

Photo 1: In Croatia, local energy strategy is a part of urban planning process. EE and RES measures are priority of its energy part. (Photo: Jelena Kovač)

When choosing which projects to develop and implement, there are several complementary criteria which should be taken into consideration. As listed below they all present an existing situation/challenge in the environment and to fully exploit measures to tackle it stakeholder participation is needed as will be shown in Step 2.

- High energy consumption of a public building;
- Heating with fossil fuels;
- Low energy grade of the building;
- Reconstruction or renovation needs

- Available know how and technologies;
- Renewable energy sources availability;
- New employments opportunities “green jobs”;
- Municipality or other owner of the building, e.g. national ministry, province etc.

- Green Public Procurement;
- Funding is supported by the community;
- PPP (private public partnership) is possible.

- Large target group of the final users;
- The project influences to awareness raising of the public.

Figure 2 -Basic steps to identify required intervention

4.2. Energy needs

Buildings are responsible for 40% of energy consumption and 36% of CO_2 emissions in the EU. While new buildings generally need less than three to five litres of heating oil per square meter per year, older buildings consume about 25 litres on average. Some buildings even require up to 60 litres. Currently, about 35% of the EU's buildings are over 50 years old. By improving the energy efficiency of buildings, we could reduce total EU energy consumption by 5% to 6% and lower CO_2 emissions by about 5%.[1]

1 http://ec.europa.eu/energy/en/topics/energy-efficiency/buildings

While in colder European regions the energy consumption for heating is more important than the energy consumption for cooling, in Mediterranean countries heating and cooling demand are almost equal. This fact enhances the use of fossil fuels as well as electricity needs of public buildings.
Energy certification for public buildings provides the amount of consumed energy in relation to the comfort and functionality. The degree of efficiency depends on many factors including:

- Local climate;
- The design of the building;
- Construction methods and materials;
- Systems installed to provide heating, ventilation, air condition or hot sanitary water;
- The appliances and equipment needed to support the functions of the building and its users.[2]

Figure 3 - Energy certification rating building's energy performance https://certificadoenergeticofuenlabrada.wordpress.com/

4.3. Impact on the local economy

Development of local economy means to enhance the local potentials, e.g. local renewable sources in combination with local technologies and local consumption. In general the criteria of sustainability are fulfilled when the equality of social, economic and ecological factors are met. The start-up of local economy is only possible when the local community or region helps to implement basic measures. The impact on the local economy results in social, economic and ecologic factors, which all together represent sustainability criteria.

Photo 3 - In Sarajevo, Green Partnerships prepared feasibility studies on energy certification for primary schools (Photo: Leila Jahić)

2- https://www.iea.org/publications/freepublications/publication/buildings_certification.pdf)

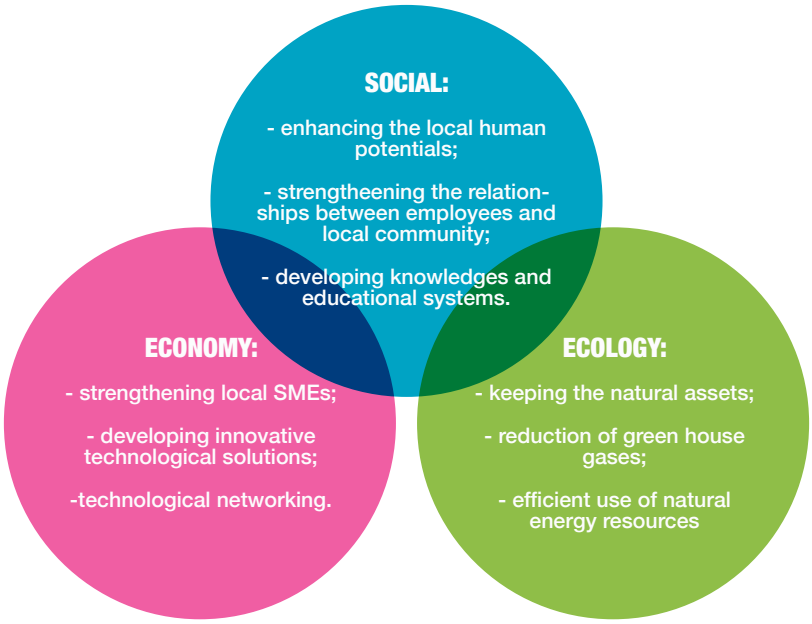
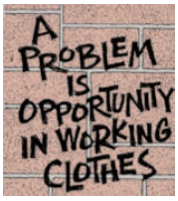


Figure 4 - Strengthening the local economy takes into account factors of sustainability

Photo 4 - Local supply of wood biomass and energy contracting enhances the local potentials in Lovrenc na Pohorju- Slovenia (Photo: Klemen Bizjak)

4.4. Implementation possibilities



«From the basic idea to its implementation it sometimes takes some months, many times also some years. There are cases where, EE and RES projects might have a bigger initial cost than the conventional energy related projects. However, VERY OFTEN, conventional projects may prove more costly in a period of time taking into account operational costs and risks for the environment. With the evolution of technology, there are –today- EE and RES solutions offered in competitive prices, offering additionally significant benefits toward a low carbon economy.

When it comes to the initial investment, money can be a barrier if some aspects of the investment cannot be financed or accepted for its public good effect. On the other hand "out of the box" approaches can be resourceful and through efficient implementation of Step 2 can turn many problems into challenges and in the end into opportunities for some of the stakeholders. 3

Modern conception of the implementation of energy project includes backgrounds for the procurements, which in some countries request certain share of local products, which help to strengthen local economies. Within the procurements and tenders it's possible to build a partnership, which equally involves private and public partners. The contracting in general contains provisions about the duration of the contracting as well as obligations and rights of all involved parties.

Photo 5 - Revival of the river improves the quality of bioclimatic conditions in the city of Lakatamia-Cyprus. Waste biomass from public areas like parks and river corridors are useful for pellets production and heating needs. Established partnerships between interested partners maintain sustainable life style. (Foto: Katarina Kresnik)

In the current economic climate, cooperative ventures between public authorities and private enterprise can provide effective ways to:

- deliver infrastructure projects 4
- provide services to the public
- finance innovation (thereby contributing to economic growth and job creation)

Project implemented by Private Public Partnerships, clustering and thematic networking contribute to the quality of project implementation. This participatory / inclusive approach also opens new business opportunities for enterprises and enables the creation of new jobs.

4.5. Impact on the promotion of EE and RES

By dissemination of EE and RES projects results to broad public, messages of importance and potential of EE and RES can more easily reach individuals and also business and other private sector stakeholders. As important as dissemination are also monitoring activities to follow the progress and change in the community on different levels. A good monitoring system is much more than just gathering statistical data it can serve as system for information input from stakeholders upon which EE and RES measures can be further improved and better tailored to the community needs and potentials.

3 - Image taken from https://www.cartoonstock.com
4 - http://ec.europa.eu/growth/single-market/public-procurement/partnerships/public-private/index_en.htm

Photo 6 - Green partnerships promotes EE measures in Spanish schools (Photo: Virginia Domingo Reig)

5. STEP 2 - CREATING LOCAL ACTION GROUP (LAG)

Who can support, contribute and improve the quality of the projects in the planning phase and contribute to the quality and positive effects for local communities in implementation phase?

5.1. Why a LAG?

Community involvement in sustainable local energy planning can raise support for, and improve the quality of development. It can raise awareness of the need for sustainable energy and can contribute to actual project delivery. It is crucial that citizens and stakeholders groups are fully involved from the beginning. All key players should share a common vision and find ways of combining skills and other resources in order to maximize their impact on the delivery of SEAP's goals.
The participation of all interested parties in the decision making process can reduce conflicts and lead to outcomes that better reflect the citizens' needs and prospects .[5]

It is highly unlikely that the effort of putting together a Local SEAP can be implemented successfully, if it does not meet with broad public acceptance. On the contrary, significant benefits can be derived from genuine participatory approaches including: reaching an agreement on identified energy management issues; incorporating the experience, the knowledge and concerns of the community in the plan; minimizing or even avoiding potential conflicts.
If all stakeholders are involved, then and only then, the SEAP has chances to be realistic and acceptable.

5 - Theocharis Tsoutsos (ed), "Sustainable Energy Communities- Practical Guide", European Commission, DG Energy and Transport, 2008

It's widely known that the most successful sustainable planning efforts have scored the commitment of all the community's stakeholders. Involving many players from the beginning ensures that everyone's voice is heard, that all worthy ideas have been taken into account and that concerns or oppositions are understood and resolved at an early stage of the process.

Local authorities have to acknowledge the value of the key stakeholder groups' consensus and support for the efficient accomplishment of the local action plan. The contribution of a Local Action Group (LAG) to energy efficiency measures implementation process is critical for the achievement of the targets set. So, their active engagement should be of priority, in order to incorporate the genuine community needs and to assure the broadest possible support.

Figure 5 - Formulating and operating a LAG

5.2. The LAG's role and objectives

LAGs aim to enhance cooperation between the decision makers, council/public authorities and local/regional stakeholders influencing energy efficiency and use/integration of RES, towards a Sustainable Energy future of the local community.

LAG's main role is twofold: To provide expertise and support during the Sustainable Energy Plan implementation in the respective Municipality/Region and to ensure that all different aspects/consideration within the community are heard and taken into account.

All members of local communities have a key role in addressing the energy and climate challenge within their local authorities. Involvement of local stakeholders including the general public's ideas, visions, experiences and expectations are important for the successful implementation of sustainable energy projects at local level.

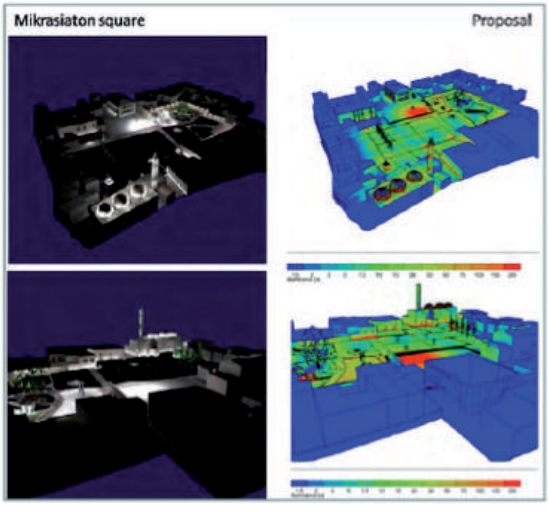
LAGs are important for the following reasons:

- participatory policy-making is more transparent and allow authorities to build on trust and confidence of the involved actors
- a decision taken together with many stakeholders is based on more extensive knowledge
- broad consensus improves the quality, acceptance, effectiveness and legitimacy of a project (at least it is necessary to make sure that stakeholders do not oppose to the project's steps);
- the under development project may get strong support from external stakeholders
- may strengthen the role of different actors using a "bottom-up" approach involving the public sector, consumers and energy providers.

Photo 6 - Bioclimatic upgrading of open spaces towards Green Neighborhoods in Rethymno improves the citizens quality of life and encourages them to use the public areas (Source: TUC)

The scope of a LAG is to work towards a higher quality of life through sustainable local and regional development. The main objectives of LAGs constitution and operation are:

- To provide knowledge, expertise, support to the pilot projects implementation and to ensure that all different aspects/consideration within the community are heard and taken into account
- To increase knowledge, awareness and capacity of key actors and employees in public authorities, and to strengthen the implementation of local public policies and plans related to energy efficiency
- To form a long-term basis for better cohesion at the local level that will last even after the completion of the project; this will be achieved by increasing the capacity of the decision makers and by bringing together decision makers, owners (of land, public buildings), suppliers, employees, end users and citizens



- To promote effective renewable energy and energy efficiency plans, creating in parallel economic benefits for the local area including job creation and reduction of GHG emissions;
- To support the authorities to claim and get funding through the prepa ration of concrete actions towards 2020 targets
- To contribute to the achievement of the national obligations towards the EU 2020 targets.

Figure 7 - Public lighting implementation study in the old town of Rethymno (Source: TUC)

5.3. Form a competent LAG

The formation of the LAG is crucial for its efficient and sustainable operation. To have a successful project, it is highly recommended to seek the most appropriate actors and to engage them. The first step is to identify the main stakeholders:

- **Whose interests are affected by the action?**
- **Whose activities affect the action?**
- **Who possess/control information, resources and expertise needed for strategy formulation and implementation?**
- **Whose participation/involvement is needed for successful implementation?**

There are various degrees of involvement: **'informing'** is at one extreme whilst **'empowering'** is at the other. The key stakeholders' representation should be well-balanced. On the other hand, a LAG has to be flexible in the decision making process. A 2 levels' LAG may be considered based on the nature and the implementation phase of each pilot project (more broad at the initiation/planning phase, less broad during the development/ implementation of the action). A wider consultation process may be decided depending on the specific requirements of the project to be implemented.

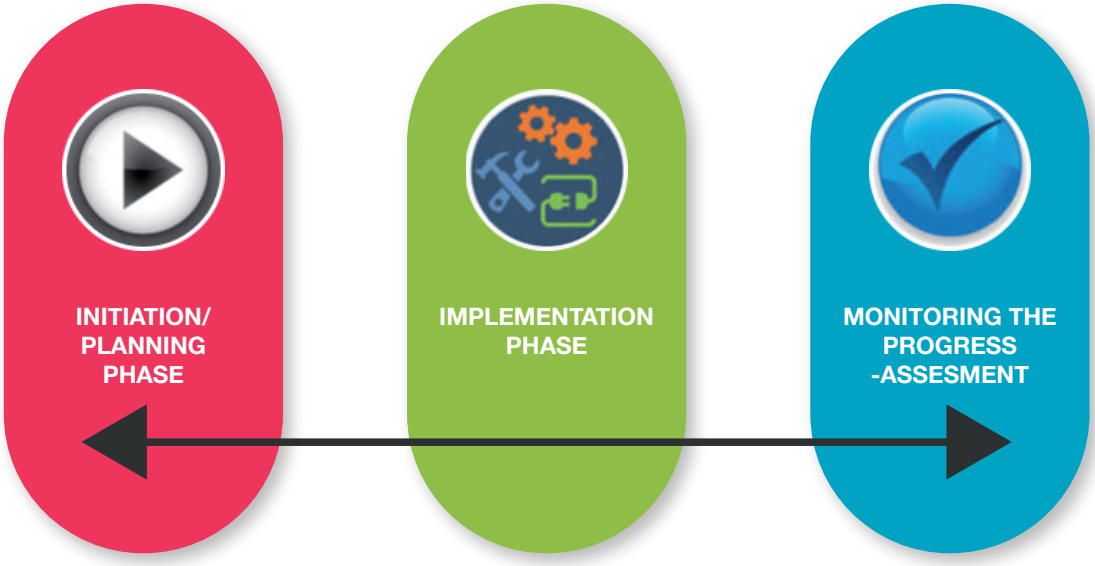


Figure 6 - Levels of intervention of a LAG

The different nature of each energy efficiency project, its requirements, level of impact to the different stakeholder groups should be taken into account during the selection of the appropriate LAG members. Figure 2.3 presents the key stakeholder groups and Table 2.1 lists a pool of potentially important stakeholders to be involved in the Local Partnerships, as members of the LAGs.

Figure 7 - Indicative Stakeholder Groups for Sustainable Energy Projects in a Local Community

Table 1 - Indicative stakeholders to be engaged in LAGs

Actors to be engaged through the decision-making and implementation processes	
Key Actors to be engaged to the LAG activities **(1st level involvement)**	• Local/regional policy makers - Municipalities • Municipal departments and related companies (municipal energy utilities, transport) • Technology/product providers • Financial partners such as banks, private funds, ESCOs, charities • Institutional stakeholders like chambers of commerce, chambers of architects and engineers • Energy agencies • Knowledgeable persons (experts, consultants, etc) • Representative from the end users group which will be directly affected by the planned energy efficiency measures • Where relevant, representatives of national/regional administrations and/or neighbouring municipalities, to ensure coordination and consistency with plans/actions that take place at other levels of decision

Actors to be considered depending on the specific fields of action:	
Actors with whom to work out RES plans	• Electricity Regulators and Grid operators - Utilities • RES technology suppliers • Associations of RES installers • Research institutions; Knowledgeable persons (e.g. experts, consultants) • Associations/clusters of building/land owners; Land owners (i.e. public, church, etc.) • Agricultural organizations; • Institutional stakeholders like association of engineers, installers • ESCOs
Actors with whom to work out Energy Efficiency plans	**In the building sector:** • Building companies, developers • Architects and engineers • Technology/product providers • ESCOs (Energy Services Companies) • Associations of installers • Association of building owners; clusters of business sectors • Research institutes, experts in EE applications; **In the industry sector:** • Utilities incl. district heating companies • Manufacturers • ESCOs **In the transport sector (if applicable to GP pilot projects):** • Mobility planners • Transport/mobility players: private/public transport companies • Cycling organizations • Freight transporters/organizations • Vehicle manufacturers • Energy suppliers
Actors important to be informed and provide their feedback and consent :	
End Users and Local Communities	• Citizens/consumers associations; Citizens Volunteers' groups • NGOs and other civil society representatives • Building managers; Building employees; building users • Local and regional energy agencies • Chambers of Commerce, SMEs associations • School Communities (teachers, pupils) • Media Representatives • Representatives of tourism sector (where this sector is of key importance)

5.4. LAG operation – Consultation process

The activities of the LAG members might involve:

- Identification of energy plan priorities and development of projects to match the local needs
- Contribution to the preparation of local step-by-step plans
- Preparation of technical solutions for the realization of the pilots and support their implementation
- Support the capacity building activities in municipal level
- Identification of efficient ways/tools to increase public awareness and disseminate the projects' outcomes (local team of volunteers?)
- Monitoring and assessment of the progress of the pilots; the capitalization of project results
- Contribution to the improvement of local energy strategy

5.5. Consultation / Discussion Topics

What will be the agenda during the meetings of the LAG? It has to be well targeted in order to have productive meetings:

- Local Energy Strategy – What kind of parameters do they have to take into consideration
- Priorities and existing local potentials; tailor the priorities to the local needs
- Solutions that would fit the local community, its needs, citizens
- Obstacles hindering the efficient implementation of the identified projects
- Propose and prepare suitable workshops/capacity building for the municipality technical staff/employees
- Technical solutions for future investments
- Funding opportunities and other financial issues – This might be the most important topic for discussion. Solutions that can be partly, if not 100%, self-funded, in a sense that the reduction of cost will compensate the investment cost.

5.6. Motivation and engagement of LAG members

The involvement of key stakeholders from the initial planning phase to the strategic decisions and the development process will be the "driving force" behind it.
Actual participation implies a dynamic, interactive process. This is based on building trust and confidence that all views will be taken into account during any energy project development. Of course, participation does not just happen.

How the potential members of the LAG will be convinced to participate? What kind of arguments do we use to ensure their cooperation? Such questions should be adequately addressed before contacting them. A list of the possible arguments follows:

- Initiate actions for a "greener" city and set up the groundwork for sustainable local and regional development, which will also prove to be useful, for re-election purposes, during the next political campaign (this applies to the municipality members)
- Be part of a European network to exchange ideas and practices with other EU regions/cities.
- Reduce the CO_2 emissions and the energy footprint of the public administration
- Reduce operational cost of the public buildings and achieve substantial savings in energy use
- Increase the energy self-sufficiency of the public buildings

- Gain increased awareness on protection of the environment and energy use, which can be an asset for securing existing jobs and for potential future jobs.
- Be part of the decision making process of your own town. Decisions that most certainly will prove to be beneficiary for the generations to come.
- To contribute to actions resulting in improved access to structural funds for sustainable energy projects and investments in the community
- Improving energy efficiency plays a significant role in sustainable development, community competitiveness, employment opportunities, environmental improvement and in enriching the quality of life for all.

Figure 8 - French regions The Pays A3V and the PNR of Verdon create partnerships between different stakeholders aiming using natural potentials. Building hydro power plant on an irrigation canal and biogas initiative.

5.7. The Green Partnerships experience

11 LAGs - involving 130 members - have been established in all Green Partnerships countries (Slovenia, Cyprus, Greece, Italy, France, Portugal, Spain, Albania, Bosnia-Herzegovina, Croatia and Montenegro). More than 101 organisations -representing the key stakeholder groups- were involved in the project's activities from the very beginning of the project. With a common vision to achieve the local Sustainable Energy Plans targets and to improve the local energy strategy, the Green Partnerships LAGs played a significant role to flagship projects' planning and development and they set up the groundwork for efficient local partnerships towards their implementation. The LAGs consisted of the key stakeholder groups as illustrated in figure 9.

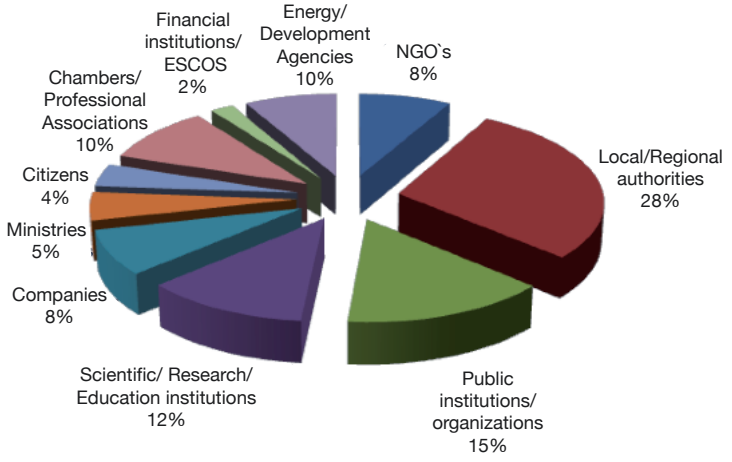


Figure 9 - Synthesis of the Local Action Groups (LAGs) in the Green Partnerships countries

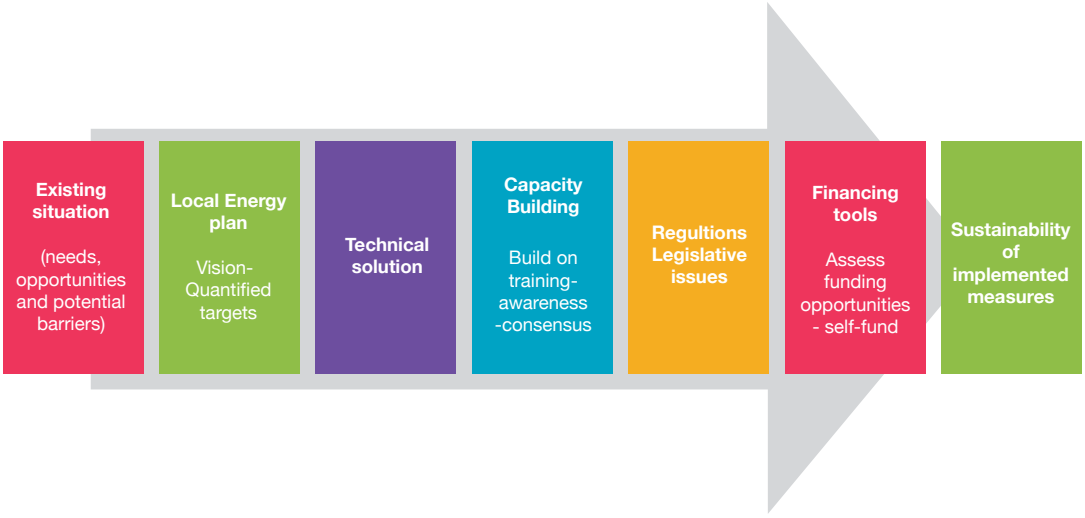


Figure 10 - Main discussion topics during Green Partnerships LAGs operation

Photo 8 - LAG meetings in the Green Partnerships regions (Source: TUC and all GP partners)

6. STEP 3 - LOCAL ACTION PLAN

If we do no plan we plan to fail - how to plan for efficient implementation of RES and EE projects?

6.1. Think global act local

Local policy makers and municipalities can significantly contribute to the worldwide climate change challenges by reducing greenhouse gas emissions through energy efficiency improvements and increase of renewable energy use at local level.
With an overall goal to establish a climate-friendly and sustainable energy system, the development of a local energy and climate plan is an important first step.
To drive an efficient implementing of the local SEAP, quantified targets, political commitment, increased competence and awareness, "green" partnerships and structural behaviour changes are vital.

Municipalities have to meet diverse challenges to contribute to the climate change fight, fostering local growth and providing their citizens with a cleaner and safer environment. The growing energy demand, the continuous increase of energy prices along with the economic recession in the Southern Europe, stimulates the cities and regions to strengthen their Sustainable Energy Strategies in order to increase their Energy Efficiency and the use of Renewable Energy Sources.

A local sustainable energy action plan (LSEAP) translates long term strategy into actions. It can be a powerful tool for cities and regions to plan, implement, monitor and evaluate climate and energy policies; With a well-balanced SEAP, local communities may benefit from a higher quality of life with increased opportunities for all citizens, reasonable use of natural resources, increased environmental protection and social cohesion and economic prosperity with respect to the needs of other communities in the wider region [6].
In addition, they contribute to the global efforts against the climate change and long term energy independence of the city, and they gain from savings on the energy bill, improved city image, political visibility and enhanced access to National/European funding; its revision -on a regular basis- based on the experience gained from the ongoing actions is of high importance to retain its effectiveness.

The main phases on the SEAP process are the initiation and preparation (data gathering-situation analysis), strategic decision and political commitment, planning and implementation, monitoring and evaluation. During the initiation phase the political commitment is stated, the administrative structure is adapted and the key stakeholders are contacted. During the planning phase the current situation and framework are assessed, the vision is set and the plan is developed and launched. Afterwards the measures are implemented and monitoring of the actions takes place. Finally, the implementation report is developed and reviewed.

6 - Tsoutsos T, Coroyannakis P, Petroula D, Tournaki S: Sustainable Energy Communities in Insular and Ecologically Sensitive Areas. RERINA IEE, European Commission, DG Energy and Transport 2008:6

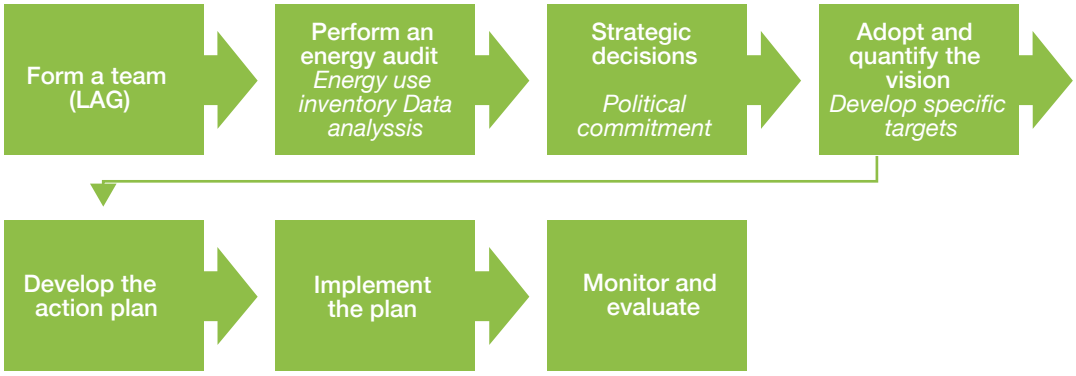
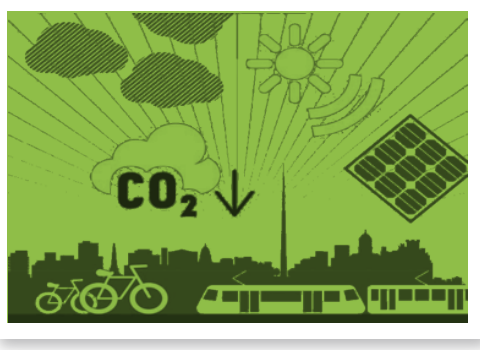


Figure 11 - Steps in the Sustainable Energy Action Planning

6.2. Implementing the local energy strategy – How to put in practice the LSEAP

Putting in practice a LSEAP, critical parameters are: a broad-based, independent ownership structure, a long-term financing model, a clear distribution of the different tasks and responsibilities, a pragmatic and goal oriented approach, a critical process monitoring, a systematic information campaign to win hearts and minds and the reassurance of the political commitment. The following are important tips towards a powerful local energy strategy.



6.2.1. Defining the project

Before starting the development of any energy related project from the LSEAP there will be a need to understand the opportunities and barriers might derive during the development and implementation phases. Knowing potential risks and benefits will help to overcome doubts and opposition and will allow to draw a feasible plan.
Any change, no matter how convincing are the potential benefits, will always trigger opposition and conflicts of interest.
Furthermore the sustainable energy projects affect different dimensions in a community as they relate to the exploitation of energy sources, i.e. social, environmental, technical, innovation, educational dimension. It is vital that all dimensions are taken into account during the preparation of the action plan.

6.2.2. Learn from others

Public authorities should learn from the pioneers and get inspired from best practices. There is no need to "reinvent the wheel". There are many regional/local authorities that have already establish or on the way to establish a sustainable energy system. A great deal can be learnt from the experiences of advanced regions/municipalities and from flagship initiatives. Public authorities may check out existing knowledge, be part of knowledge sharing networks, participate in existing energy and climate protection initiatives, directly cooperate and interact with the pioneers. Best-practice examples, useful tools and tested methodologies are available in online databases.

6.2.3. Assess local potential

A thorough analysis of the regional/local situation, the potential for energy saving and energy efficiency improvements, the RES potential and further possibilities for sustainable siting/integration, and of the social context is a very important step to create effective energy plans and set realistic goals. It will also help to determine appropriate funding levels and allocation of resources for specific energy efficiency projects.
Local energy producers and relevant technology providers may also provide insights into the scale of the energy efficiency opportunity in the area.

6.2.4. Evaluate alternative solutions

A number of possible solutions may be identified for developing an energy efficiency project. The decision makers should be informed about the key parameters of alternative scenarios. Energy efficiency potential can be assessed at different levels:

- **Technical potential:** The theoretical maximum level of potential energy savings, assuming immediate implementation of all feasible energy efficiency measures regardless of cost-effectiveness.
- **Economic potential:** A subset of technical potential which assumes immediate implementation of all cost-effective energy efficiency measures (where more measures are appropriate for an application, the most cost-effective one is selected).
- **Achievable potential:** The level of savings that could realistically be achieved by an energy efficiency project within a specified time horizon, given limiting factors such as cost--effectiveness, capital constraints, the useful lifetime of existing installed equipment, ROI, barriers that affect adoption of specific energy efficiency measures etc.

The achievable potential is the most useful for goal-setting since it takes cost-effectiveness as well as key time-related and technical-related constraints into account.
Plans to maximise the share of RES should take into account site-specific characteristics such as the kind of energy infrastructure, energy consumption per area unit, grid interconnection and grid robustness, power consumption patterns, as well as the capacities and constraints of the existing renewable technologies in combination with the main features of renewable sources.

To facilitate the selection of most appropriate measures, the local authority may rank them based on a set of criteria (i.e. investment required, energy savings, employment benefits, improved air quality, relevance to the overall objectives of the local authority, political and social acceptability) ; each criterion could weight differently. To set the priorities, potential risks associated with the measures implementation should be take into account and decisions should be based on relevant expert and stakeholders' opinion.

6.2.5. Quantify targets

Well defined, measurable, achievable, realistic and quantified targets have to be set in any local energy action plan, i.e. energy saving in MWh, share of locally produced renewable energy (in MWh), CO_2 emission or CO_2 equivalent reduction in tons per year (t/a).
Targets should be discussed and adopted within the Local Action Groups.

6.2.6 Take action

The action plan foresees specific measures and projects, projects, and details the foreseen resources. The key components of the efficient implementation are:

- the LAGs engagement in the LSEAP vision
- a strong political commitment
- a competent project team to guide the different steps and to monitor the progress
- capable local partnerships
- coordinated activities amongst all involved parts.

Table 11 - Critical success factors and potential local drivers toward a flourishing LSEAP

Critical success factors	Potential local drivers (motivation)
Clear implementation concept with realistic goal	**Local/regional potential for renewable energy**
Municipality's political willingness to deal with resolutions dealing with energy and climate	**Local environmental considerations**
Municipality's organizational/technical capacity to implement the measures of the local energy plan	**Convincing vision with broad public appeal that can unify local actors and citizens around it**
Appropriate funding tools and supporting mechanisms. Secure long-term financing	**Target towards energy self-sufficiency, or CO_2-neutrality society.**
Engagement of local stakeholders and building on local partnerships	**Local jobs and substantial growth**
	Direct financial savings
	CO_2 compensation policies
	Improve the image of the municipality as environmentally friendly

6.2.7. The Green Partnerships experience

The engagement and active involvement of local and regional stakeholders, from the initial stages of mid or long-term policy development (e.g. SEAPs, local energy strategies, sustainable energy projects) has been critical to incorporate the genuine community needs and to assure the broadest possible support towards the targets set, through an interdisciplinary multi-stakeholder approach. Their consensus and contribution has been proved crucial for the efficient accomplishment of the demonstration projects, which was chosen from the local sustainable energy plan and implemented within the Green Partnerships regions.

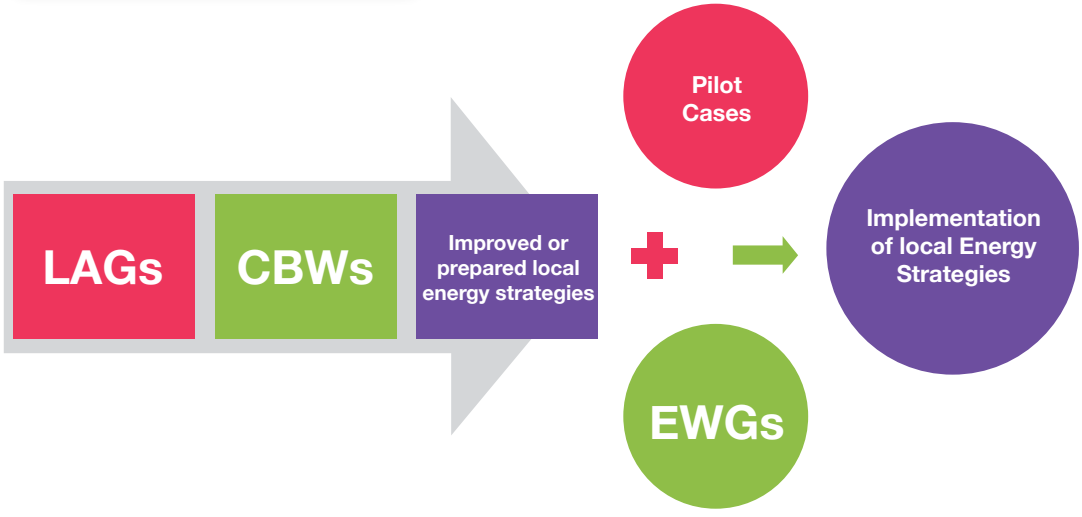


Figure 12 - The Green Partnerships Building up Approach

To facilitate the pilot actions efficient implementation competent Local Action Groups have been constituted and engaged through the whole process, capacity building activities targeted to the key policy makers and technical actors have been designed and implemented. Local energy strategies have been improved or prepared supported by the Expert Working Groups and transnational knowledge transfer. Demonstration pilot projects have been initiated and efficiently implemented providing lighthouse cases and replicable models as best practice examples towards the successful implementation of the local energy strategies.

Figures 13 and 14 summarise the potential barriers and main opportunities identified during the consultation process that took place in the 11 Green Partnerships regions.

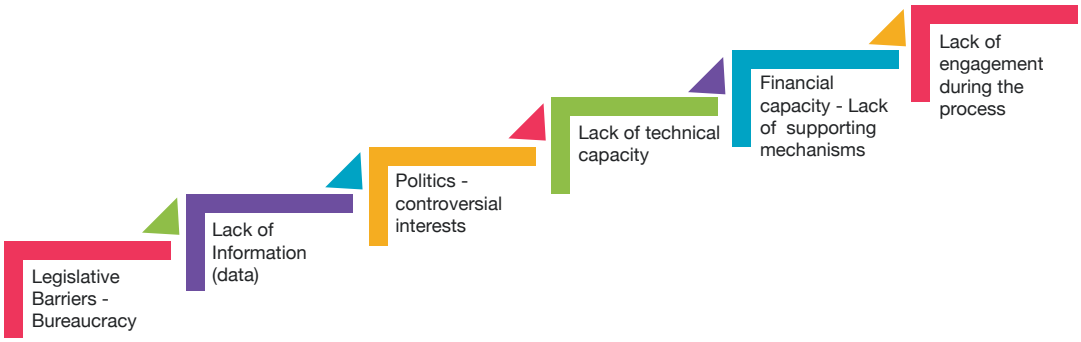


Figure 13 - Main barriers for meeting the SEAP's targets identified during the Green Partnerships consultations

Figure 14 - Opportunities identified during the Green Partnerships implementation

Green Partnerships has not structurally change existing process patterns, but it proposes functional improvements of the local energy strategies implementation practices.

Photo 9 - Green Partnerships EWGs, local project teams and consultation activities (Source: TUC)

7. STEP 4 - EMPOWER POLICIES & LOCAL SKILLS

Knowledge and capacity gaps are of the main obstacles for the local authorities to efficiently implement the local energy action plan.
Capacity building and awareness-raising activities empower local communities to enhance energy efficiency and renewable energy best practices.

Activities to build awareness, improve understanding, raise interest and build capacity will enable local governments (decision makers, technical staff) to address the challenge of putting in practice the sustainable energy strategies and will equip them with the information they need to consider when taking decisions, and when developing/ implementing/ monitoring energy efficiency interventions and the SEAP's implementation.

Furthermore, education and awareness-raising activities for households and public employees play a key role in understanding why it is necessary to act locally and what can be done by individuals in home. Municipalities or regional authorities can take a leading role, putting in practice a communication strategy on sustainable energy use, including practical advice on how energy savings can be achieved in daily life.

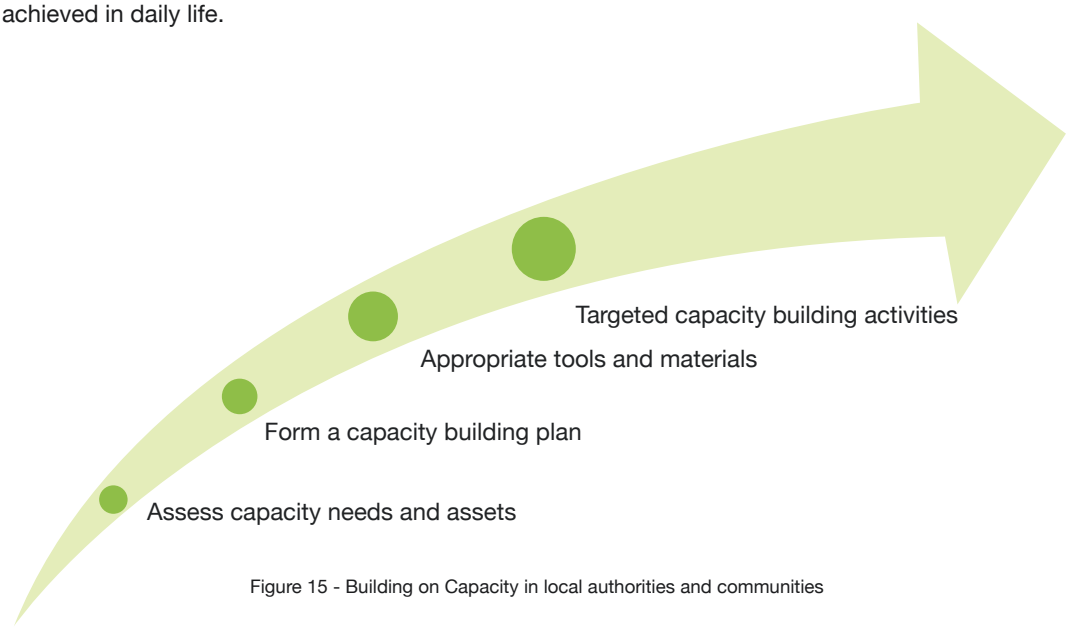


Figure 15 - Building on Capacity in local authorities and communities

Through targeted capacity building activities, local authorities will strengthen the skills, competencies and abilities of the involved staff, the decision makers and local stakeholders, so they are able to handle the problems and manage all issues associated with the implementation of LSEAPs, enhancing thus their abilities that will allow them to achieve measurable and sustainable results.
The various tasks and subtask required for the implementation of a LSEAP call for a wide range of skills and competences. In addition, new skills and new ways of thinking and working -usually outside the traditional pattern- are required from those involved in the SEAP's delivery.
The capacities may be distinguished as 'hard and soft'. Hard capacities are generally considered to be technical, functional, tangible and visible, and include:

- Technical skills, focus on knowledge and methodologies
- Organisational capacity to function: appropriate structures; systems and procedures for management, planning, finance, human resources, monitoring and evaluation; the ability to mobilise resources
- Laws, policies and strategies.

Soft capacities are generally considered to be social, relational, intangible and invisible and may distinguish in **operational** (i.e. organisational culture, leadership, political relationships, negotiation, teamwork, conflict resolution, problem solving skills, etc.) and **adaptive** capacities (i.e. willingness to learn from experience, ability to adapt, readiness and motivation to act, etc.).
Capacity building activities should address both types of capacities.
When the local action plan is drafted and targets are set the capacity building strategy and plan needs to be developed. The capacity building activities ought to have targeted topics, related to the foreseen local energy action plan and based on the needs of identified participants with emphasis on creating capable local partnerships.

There is not a specific approach to capacity building that will work in every case; each region and each local authority has different situations and different needs that need to be specifically addressed and met. At first, the local capacity assets and specific needs have to be identified in order to form a fertile capacity building plan that defines:

- Who is involved in planning, delivering and maintaining sustainable energy solutions? WHOSE capacity are we trying to build?
- What skills, behaviour and knowledge do they need? Capacity to do WHAT and WHY?
- Where are the skills gaps amongst the current workforce and potential contributors? HOW should we fill those gaps?
- What are the priorities for action and who should be involved in delivery? WHEN and WHO should deliver the capacity building?

Indicative capacity building activities are:
- Capacity building workshops and technical training
- Conferences - Publications
- Transnational knowledge transfer-access to informational resources/tools
- Networking - Coordinating alliances
- Consultation (expert advice, mentoring, coaching
- Awareness campaigns.

7.1 Key components of capacity building workshops and training activities

The objective of a capacity building workshop is to make target audience aware of the basic principles behind different technologies and to assist them in the assessment and the best choice between different proposed solutions.

It is recommended that, when a workshop with a technology topic is organised (i.e. biomass, solar) to be combined with the less technical topics (Awareness, Funding, Stakeholders involvement, Legislation). For the efficient implementation of a Sustainable Energy Action Plan or a sustainable energy project the non-technical aspects are also of high importance. Policy/decision makers and planners should be aware of those issues and should apply relevant recommendations before starting the implementation of any project.
The key components of a capacity building workshop or training are illustrated at figure 16.

Course Contents	Appropriate syllabus including indicatively relevant terminology, alternative technologies/solutions, advantages and disadvantages, technical considerations/ barriers, economical/ environmental aspects, case studies, decision making process, resources/useful links.
Training materials	E.g. presentations (ppt), training material (pdf file), extended list of further resources and links for case studies/good examples from other local authorities in EU.
Training approach, methods and tools	"Classroom" presentations with experienced trainer, analysis of examples, field study visits, appropriate visual materials, discussion/discussion groups
Trainers profile and training	expert(s) on the specified topic, more than 3 years experience in the field (either as a trainer or as a technician)
Evaluation – Reporting	participants' opinion is important; an evaluation form can be distributed after the end of each workshop. Filled questionnaires can be gathered and analysed to provide useful feedback for the improvement of future workshops

Figure 16 - Outline of key components of a capacity building workshop or training

The training approach can include classroom instruction and presentation of case studies and practical examples with an overall goal of providing new ideas and technical knowledge. Trainers should pay attention to the level of understanding of the participants and resiliently adapt to it accordingly. The following points should be taken into consideration for effective lecturing:

- Exchanging with the participants to confirm understanding;
- Practical examples of different technologies and systems to deepen their knowledge;
- Resources for further knowledge;
- Brainstorming session;
- Discussions among participants.

Involving participants in a training workshop in an active way, which incorporates their own experience, is essential. Getting everyone involved is a key to a successful workshop.

- Create a list of main points to discuss, and break down into critical details that you want to communicate to your audience.
- Facilitate the discussion between the participants. Mix up the different profiles; by encouraging them to interact they can learn to look at things from different perspectives.
- Record the ideas and considerations expressed by them and let the group to exchange, evaluate and prioritise them.

Such experiential learning gives the participants an opportunity to develop their skills and supports them to decision making.

Motivation of the target audience: How the target audience will be motivated to participate? Such questions should be adequately addressed before contacting them. Possible arguments could be:

- Learn pro's and con's of potential solutions when initiating specific actions for a "greener" city; identify critical steps on decision making to set up the groundwork for sustainable energy local projects, which will also prove to be useful, for re-election purposes, during the next political campaign (this applies to the municipality members)
- Gain technical knowledge on how to apply successful practices/technologies to reduce the CO2 emissions, energy footprint and operation cost of public buildings
- Gain knowledge on how to improve access to structural funds for sustainable energy projects and investments in the community
- Get informed on the existing legislation and funding opportunities
- Learn from best practices, that other local authorities have implemented.

The Green Partnerships experience

The capacity building and awareness campaigns, realized in the 11 Green Partnerships regions included a wide range of measures and actions, which improved the effectiveness of local energy policies.
22 Capacity Building Workshops were implemented aiming to enhance the local capacity and to support the efficient accomplishment of the Local Sustainable Energy Plans.

The capacity building workshops key target groups were identified as follows:

- **decision makers:** representatives of public bodies in charge of energy efficiency and RES (city council members, local and regional authorities, municipalities' staff, energy managers, technical staff) and all other members of LAGs, to be equipped with the information they need to consider when taking decisions about energy management in their city/municipality.
- **staff of the municipal / public organizations technical departments** who will have the responsibility to advise, develop, implement, monitor a technical solution or the SEAP/local energy action plan or/and employees responsible for energy management.

Photo 10 - Training and capacity building workshops in the Green Partnerships regions (Source: TUC)

700+ participants, regional and local policy makers, municipal technical staff, energy/ maintenance manager of municipalities, public buildings' personnel and users, representatives of contractors carrying out the maintenance, local energy service companies, members of Green Partnerships LAGs (Figure 17).

Practical guidelines on the organization, implementation, evaluation and reporting of the Capacity Building Workshops have been also developed, including the workshop's content, evaluation form and checklists.

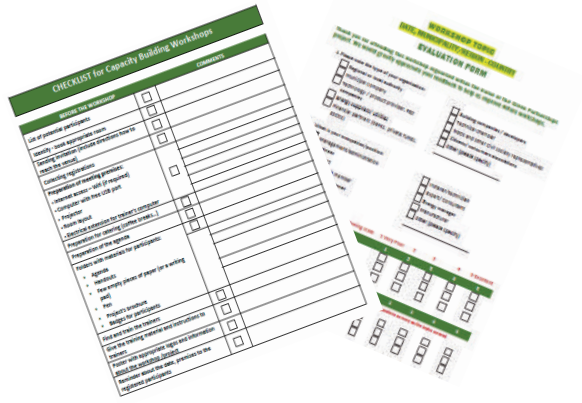


Figure 19 - Checklists and evaluation questionnaires used at the Green Partnerships Capacity Building Workshops

Additional activities aiming at raising awareness regarding the impact of RES and EE measures, inform the public and spread the experiences and results deriving from the project, were also implemented in local, regional, national and international level. Such activities were public/ consultation events, networking events, conferences, scientific articles, press releases and other.

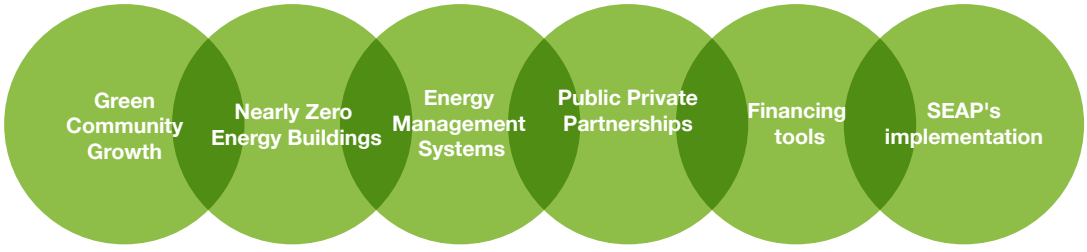


Figure 20 - Thematic areas for future capacity building actions proposes by the Green Partnerships workshops participants

The workshops had targeted topics related to the foreseen pilot projects and were based on the needs of identified participants with emphasis on creating capable local partnerships. They provided the participants knowledge in RES and energy saving technologies, as well as understanding on areas as legislation, funding, communication and stakeholders motivation, also guidance on the steps that need to be followed to implement efficiently sustainable energy projects in their region.

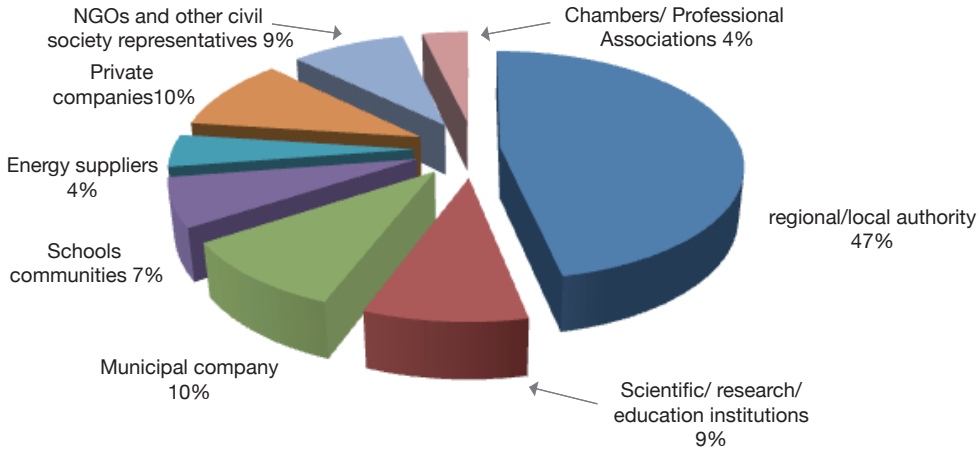


Figure 17 - Type of stakeholders trained during the Green Partnerships capacity building workshops

Appropriate training materials for the workshops and future use by the participants in 8 different topics (Biomass, Solar Energy, Stakeholders involvement, Energy efficient buildings, Public lightning, Legislation, Funding, Awareness), in 11 languages (12 sets of training material) were prepared by the Expert Working Groups and were tailored to the specific needs of each region. The materials are available for their use after the project's end through the Green Partnerships' website, assuring sustainability of knowledge in local communities, as well as for other MED areas.

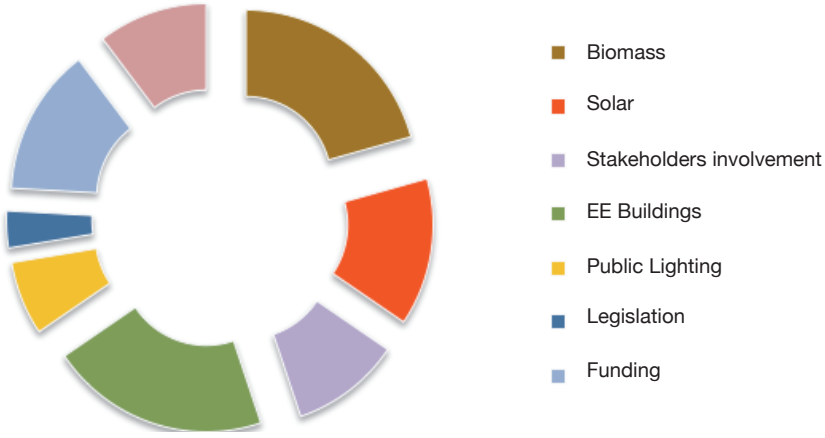


Figure 18 - Topics of Capacity Building Workshops implemented during the Green Partnerships initiative

8. STEP 5 - CREATING LOCAL PARTNERSHIP(S)

What are local partnerships and why are they important?

8.1. Creating Local Partnership

Local partnership is defined as a non- formal or formal partnership between public sector, private investors and users of single investment or implemented measures. Local partnerships concretize the EE or RES measures, developed by the local action group, in a form of an implementation partnership or business initiative, if the nature of the project allows it. The construction of the partnerships depends on the topic, which is the subject of the Local Energy Plan and in general it consists of and is in relation with:

- Members of the Local action group;
- End users who can implement some soft measures (e.g. energy efficiency measures in the office, school, recycling, energy saving in households etc.) and internalize them;
- Investors as a private partner or third party of the implementation (e.g. forms of energy contracting, financing partner);
- Public as an observer and/or end user is the most important partner for the know- how transfer between communities and regions and has a crucial impact to the public opinion.

Local partnerships are based on the formulated local action groups (see chapter 2), which discussed about the possible solutions and try to remove obstacles for faster implementation of the project. Local partnerships invite to the project third parties and end users to discuss about the technical and other implementation possibilities.

8.2.What is a good partnership?

Good partnership is characterized by a participatory, co-developing approach, where partners contribute to the common goal with their input and have clearly defined results they want to achieve within the partnership. Partnerships can be formed on several different levels, depending on the scale and complexity of the project:

- Partnerships in local neighbourhoods
- Partnerships in the larger area, such as a city
- Partnerships at the regional or state level.

A sign of a well implemented process in Steps 1 to 4 can also be presented by a business plan that the partnership adopts in order to better implement the project. If Steps 1 to 4 have been implemented properly the Local Partnership in question will have clear goals set, partners will understand their roles, expected input and expected results from the project.

8.3.Dividing roles

Effective partnership involves different parties such as technicians, engineers, public sector and a (private) company, which is able to implement the project. The structure depends on the goals and amount of work, which has to be done in the common project. It's important, that the local partnership reaches an agreement about the coordinator of the project, which is responsible for the implementation as well as the controlling of the project. The coordinator is responsible for the management and should meet the requirements of the partnership that has appointed him.

All important tasks in the project should be agreed and confirmed by the mid or long term agreement between the coordinator (lead partner) and contractors. The contractors should be chosen by the official procurement which enable transparently course of the tasks.

Figure 21 - Good partnership is diverse but is following the joint vision and goals of the project, contributing their respective experiences, business propositions, promotion and investment money (author: Samo Jenčič)

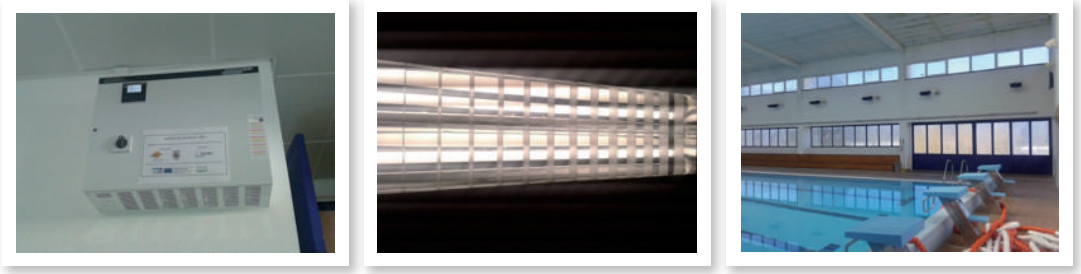


Photo 11 - Implementation of improved public lightning system in Portugal was possible with established partnership between public and private partners. (Photo: AREANATejo)

8.4. Funding opportunities

European Union supports energy efficiency measures and the renewable sources on different levels, depending on the prepared documentation and the size of the project. Those kinds of financing are divided into following groups**:**

1. Structural funds
2. Cohesion funds
3. Horizontal funds
4. Loans

The support depends on the measure, which is supported and is in average from 30-100%. When considering RES and EE projects private investors might also be interested to participate. They can have different demands and expectations from the EU or national funding schemes but tend to be business oriented and therefore can realise their commitments faster than public sources. In order to attract and get interest from private investors Step 2 is very important in order not to miss a potential partner even though it might not seem as a potential partner at first glance.

Photo 12 - Albania as a pre- accession state hasn't got very good possibilities for financing of EE and RES measures. For the local environment small steps projects financed by local partnerships are important. (Photo: Sallaku, Valentar)

For more specific information funding possibilities please refer to Training Materials section.

9. STEP 6 - IMPLEMENTATION PROCEDURES

Putting ideas into practice

9.1. Starting points

For the implementation of the project feasibility study is required. It determines basic conditions, which are first indicator for the possible implementation. Depending on the kind of investment, the required steps are outlined below:

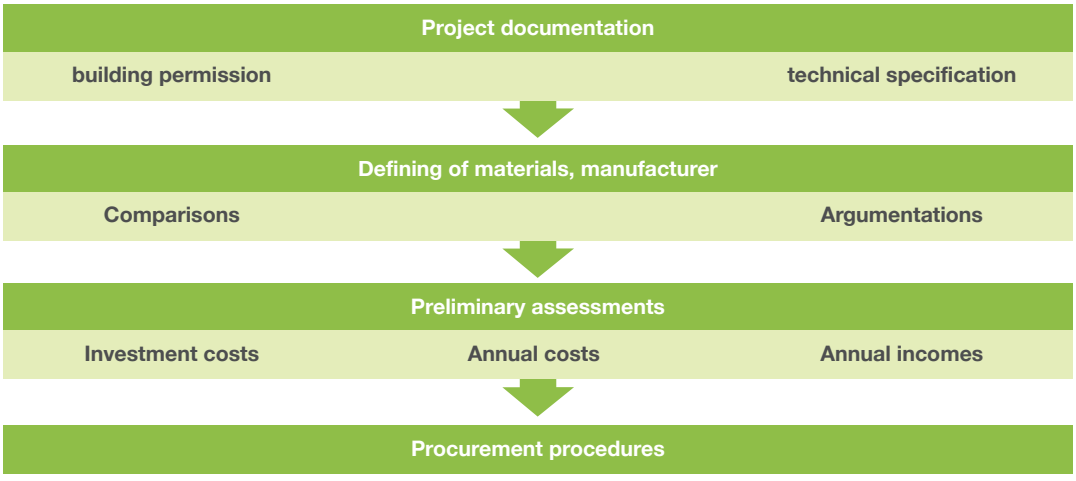


Figure 22 - Basic implementation procedure

Implementation procedure can of course differ from country to country even in-between regions there can be differences in required procedures, permits, supporting documents that need to be delivered and approved before actual investment is made. Success in the implementation phase is therefore a result of good planning in previous phases, with special regards to Step 1, where we choose the problem and address it also by meansby means of its viability, preferable we run a simple PESTLE analysis to systematically address all relevant aspects of the project in relation to stakeholders and the environment.

9.2. Networking and documentation

Networking is a very important part of each project. The aim of lobbying is to:

- Spread the idea to the decision makers

Decision makers usually maintain the connections from previous good working projects and carried out tasks. **An important aspect of Networking is the nature of the process which works best when it is inclusive. Approach those stakeholders and address them in "their own language", show them the positive impacts your project will have on matters close to them, ask for advice and suggestions which will help build a relationships and point out your project from the rest.**

- Faster generation of project documentation

Not only costs, also some other documents, for example permissions of nature or culture conservators as well as legislative barriers prolong the process of implementation of the project. To speed the process it's important to establish connections with officials, that they better understand the project.

- Connections with civil groups

Civil groups often strongly oppose to the new ideas and projects. Communication in the right time (before the project) helps to improve the relationships between parties.

Figure 23 - Introduction of the project to stakeholders (Source: GERES)

Photo 13 - Green partnerships helped to improve communications and speed up the process of implementation in Montenegro project - Jezerstica

9.3. Procurements procedures

Transparent procedures in the official procurements and tenders enable to implement projects hand in hand with public. New, green projects should take the advantage and publish all needed information for the public before the procurement. Publications, public relations and promotion of the project help to establish good circumstances to gain local economy with selection of local supply and production chains, social services and local manufacturers.
Despite of European regulations, green procurements are not always very successful in local environment because they are still more expensive. If the price is the only criteria, they will be efficient only in case of their generally acceptability by local or regional governments and when they are also approved by the public. See also Step 4.

10. STEP 7 - MONITORING AND EVALUATION

Good evaluation counts for one good expert.

10.1. Why do we need evaluation and monitoring activities in RES and EE projects?

Evaluation is often an overlooked part of project implementation and seen as an administrative burden. Many times so because we are not focusing enough on it use value. **Evaluation is a systematic review of the past activities where we are basically asking ourselves what we did, with how much resources in what time and with what effect. Getting answers to these questions helps us improve or put in more attractive terms it can make us more efficient and effective which means reaching more with less.** So why is evaluation as a tool so overlooked? This could be assigned to several causes of which the most common are:

- lack of cross sector communication in project development
- addressing RES and EE projects as (predominantly) technological projects
- lack of initial research work in the environment, environment and stakeholder potential analysis and application of RES and EE projects in support of their utilisation
- not seeing RES and EE projects as business development projects but rather as cost reducing measures

After initial five steps have been implemented and the project is running we need to set up criteria to evaluate the performance of the project, which are in direct correlation with the defined goals we have set in the previous steps. **Although monitoring and evaluating is the second to last step its results can be used to improve the whole planning process in next iteration and can further contribute to identify and improve technology and socio-economic aspects of RES and EE projects, making it more attractive to investors and therefore improve possibilities to be implemented.**[7]

To get a basic overview of the project performance, three levels of project implementation should be addressed as presented in this table:

7 - Image taken from http://freshspectrum.com

IMPACT	Which parameters to monitor	Whom to report about the results	Evaluation criteria
Strategic level	- increase in number of RES and EE projects developed and implemented - improvements to strategic documents e.g. SEAP or Local Action Plans - - identified potential for major RES and EE projects that can become a major development factor in the local environment in the future - good reply from private investors	- political authorities - relevant interest groups - expert groups at regional, national level who work in energy and energy related sectors - media and relevant NGO or other interest groups	Number of new RES and EE projects Changes in SEAP or equivalent relevant strategic documents Concrete interest from private investors expressed
Technological level	- decrease in costs of energy for different use - opportunist benefits arising from implemented projects e.g. les emissions, less maintenance and lower costs of maintenance - improved efficiency of energy production and distribution - utilisation of residual waste for energy production, closed production cycles	"technology experts and research institutes" - all stakeholders involved - media and relevant NGO or other interest groups	Savings in cost of energy Savings in other areas after project implementation Reduction of emissions
Socio economic level	- local businesses started - green employments - local (or wider) added value chains established - increased awareness of people about RES and EE projects as contributors to community welfare	- all stakeholders involved - media and relevant NGO or other interest groups	Number of business or other business related activities started as result of project implementation

Selecting an evaluation method is strongly related to the goals set and performance criteria for the projects results, part of the process elaborated in steps 2, 3 and 4. Due to different circumstances and environments in which RES and EE projects are implemented and the complexity of projects one of the most comprehensive, logical and easy to implement is the PESTLE analysis or evaluation method.

Figure 24 - The sustainability plan of the city of Freiburg has proved to be one of the European most successful practices.

10.2. PESTLE method

PESTLE stands for P for Political, E for Economic, S for Social, T for Technological, L for Legal and E for Environmental aspect [1] of the environment in which projects are developed and implemented. It gives a bird's eye view of the whole environment from many different angles that one wants to check and evaluate or analyse the potential when evaluating or testing an idea.
It is very critical for one to understand the complete depth of each of the letters of the PESTLE. It is as below:

1.Political: These factors determine the extent to which a politics may influence the project development and/or implementation. E.g. some projects can only be developed and implemented with support of political structures so understanding the motivators for political support is crucial. Local (or hierarchically higher) authorities can contribute to the implementation with different incentives, financial, resources in kind or can be a public partner in public private partnership. See also Step 5.

2.Economic: These factors are determinants of a projects' performance that directly impact project partnership and can mean the difference between project success and failure. E.g. economic aspect of implementing a solar panel installation on a roof of a school can be measured in simple cost reduction (if any, fiscally speaking) but can also mean a valuable learning "tool", awareness raising capacity of the school to contribute in local environment with technological, social, environmental practices that contribute to the wellbeing of the community. These effects can sometimes be difficult to measure or calculate so do consider that not all projects can fall under a simple cost benefit analysis. See Step 1 and 2.

3.Social: These factors scrutinize the social environment and simply put asses real, predicted and expected changes in social environment e.g. behavioural changes with individual people as regards to the energy efficiency but also trends that can occur at business level e.g. green labels, RTD invest-

Source: adopted and adjusted after http://pestleanalysis.com

ment in support of technological development. Economic and social aspects of the PESTLE method are two of the most intertwined pillars of the method and support the thesis that RES and EE projects should be considered as horizontal measures in support of socio economic development**.**

4.Technological: These factors refer to innovations in technology that enable savings or better utilization in all aspects: time, investment cost, maintenance savings and potential cost reduction, generation of new opportunities and benefits for future project partnerships.

5.Legal: Legal aspects and administrative side of projects implementation is often overlooked, badly planned and often there are no alternatives to project implementation - even though existing legal framework is preventing an implementation of a good project. Changes in administrative and legal procedures often take long and can present a major obstacle for private investors but also for public investors. Analysing the stat of art of the legal/administrative environment is sometimes the most important aspect of RES and EE implementation process.

6.Environmental: environmental impacts can be divided into direct and indirect impacts. Direct impacts represent immediate changes in e.g. emissions when changing heating installations from oil based to modern biomass system and is mostly positive since it refers to the direct outcome of the RES or EE project. Whereas indirect effects can be positive or negative. In the case mentioned all environmental aspects can be positive if the biomass is harvested, transported and processed in a way that energy value is sufficient, with environmental conscious approach, e.g. biomass is generated from public areas and sustainably managed forests. It can also be a case of biomass being of poor quality which leads to suboptimum functioning of the system, collapsing the economic calculation and minimizing the technological impact. This assessment is strongly connected to the technological aspect since rarely is the full emission cycle addressed.

11. STEP 8 - AWARENESS RAISING: PROMOTION, COMMUNICATION AND DISSEMINATION

Build on your success

11.1. Awareness raising is also presenting opportunities

Awareness raising in general can cover a huge range of activities: anything that involves people understanding, learning or doing something new; visioning the future; working out how to change something in their lives; or talking to someone else about what they have. Loud, outgoing events that make a big splash and get publicity will work in some places and for some people, while in others it may be more appropriate to take a quieter approach – entering into conversations with existing groups and maybe supporting their work.

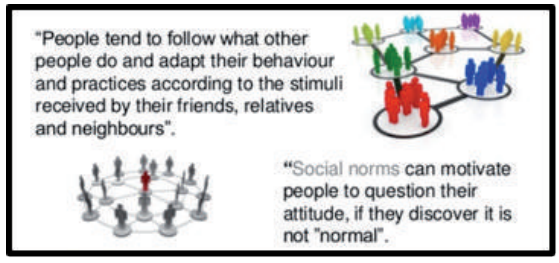


Figure 25 - Raising Awareness and social influence (Source: Andreas Kamilaris)

Awareness raising, even though presented as individual pillar of the Green Partnerships project, is an activity that can be implemented in every step of the approach and can serve different purposes depending on the step and target group we are addressing. In order to take full advantage of the awareness raising activities there are some key tasks in developing the awareness raising plan that include:

- Define the target group for marketing efforts (customers, trade allies, children, companies, etc.).
- Determine what communications channels will be used to communicate energy efficiency program information to each target group (direct mail, workshops, events, website, press conferences and different presentations in media).
- Develop marketing messages that will be effective for each target group.
- Estimate a budget for marketing activities.

Photo 14 - Involving wide groups of stakeholders ensure the success of the awareness rising campaigns. dissemination of materials and soft measures in public buildings: Maribor and Spain (photo: Veronika Valentar, Virginia Domingo Reig

Different tools can be used to implement different awareness raising activities and their application depends on what the desired effect is toward specific target group. It can be aimed at informing, educating, testing/gathering response or looking for input. In relation to that there are several different channels of communication that can be used

11.2. Delivery tools for awareness raising activities

Most commonly used tools are presented in the following chapter with short explanation of their use value.
Brochure is a flyer, pamphlet or leaflet that is used to pass information about something. Brochures are advertising pieces mainly used to introduce an organization and inform about products and/or services to a target audience. A good brochure should look inviting and be easy to read. Don't cram too much copy into the brochure.

Emails – They are a direct form of communication. It allows you to send targeted messages. It can be used to gather further questions, ideas and suggestions. Email messages should be relevant and interesting. Don't make the email too long – aim to get straight to the point. If possible, use graphics and/or colour. Don't overload recipients with too many messages as this can cause a negative reaction.

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Posters - These remind people to save energy but they must be renewed at regular intervals. Posters can contain different types of messages: news, questions and commands. You have to focus on a different issue for each poster and to use different images. The message must be short so that the lettering can be bold and large and seen at a distance.

Stickers - Encourage people to think about saving energy at the point of use. Stickers can be used to target different equipment or individuals. You can use stickers at the point of use, on or near equipment, like photocopiers, printers, computers, light switches and machines. You can label equipment with colours. Red could mean "switch off after use" and green could mean "allowed to be left on", for example. You can label those light switches which should be switched off first – usually rows of lights beside windows. You can label equipment that uses a lot of energy.

Displays - Use part of an existing notice board or create a dedicated one about energy saving, or to inform staff how the campaign is going. Place the display where everybody can see it. Focus on your communications. Concentrate on one or two issues at a time and change them regularly to maintain interest. Use images such as photos, cartoons or energy use charts.

Newsletters - They include news, opinions and feature articles on topics of interest to a target audience. To use communications where available, to inform people and report on success stories or events and, if possible, include photos of the people involved. Think about the publication's audience. Make raising energy awareness a regular feature. Using newsletters for promotion is important because you can target specific audiences and people who matter to your organization and communicate with them in an effective, highly efficient manner.

Presentations, lectures and workshops - A dedicated presentation, lecture or a workshop on energy saving is an ideal opportunity for getting the message across. Presentations, lectures or workshops are an ideal forum for face-to-face communication. You can present and answer queries, highlight the impact of energy saving and provide advice on how to achieve it. They also provide an opportunity for reporting on progress and providing information on energy consumption, gather input and response from the target audience.

Word of mouth – It is any apparently informal communication about the product by ordinary individuals, satisfied customers or people specifically engaged to create word of mouth momentum. It generates messages to stimulate interest and get people talking. Word of mouth is often the most powerful method of communication. Successful messages are those which provide information and get people talking about the issue.

Promotional materials- Include messages on promotional materials such as diaries, calendars, Christmas cards, leaflets, brochures and mouse mats. If possible, add energy saving messages to your organisation's website or create dedicated web pages about the programme. Make people aware of your achievements in energy saving – this is a good marketing message which can help enhance your organization image.

Competitions- By offering attractive prizes, you can motivate people and raise their awareness on energy efficiency. Competitions are also an excellent way of getting people to participate in saving energy. Ideas for competitions include: to design a poster, to prepare an energy quiz, to create slogans – the best slogan wins, to paint a picture, to photo a picture. Depending on the type of competition, you could target it at people at general or to the children. Asking children to compete to design an energy saving poster is a good way of personalising the issue.

Press release- It is a brief written summary or update, alerting the local media about your group's news and activities. Press releases are similar to news articles in that they inform the public, but they're usually prepared for the people who are working in specialized fields. Press releases are created either to preview an upcoming event or to inform the public about something that has already occurred and written in a clear, concise manner that easily and quickly conveys its message to the reader. Your press release will help your group in a number of ways. It can:

- Announce an event, schedule, study, campaign or workshop.
- Tell people why you think this development is news
- Show your perspective on the development
- Increase the visibility of your leaders (if quoted in the release)
- Remind people of what your group does and how active in the community you are
- Allow you to highlight or summarize a report.

Press conferences– it is a tool designed to generate news – in particular, hard news that can advance the cause of your organization. Hard news is defined as a story in the print or electronic media which is timely, significant. A press conference is an additional media technique, for special occasions, when you really want to make an impression. You can give more information than in a press release. A press conference is interactive; you can answer questions from the press, and emphasize points you might not otherwise have a chance to make. You can announce an important development, and explain its significant local and wider implications. You can often generate the kind of notice or publicity – a spot on the 6:00 TV news, for instance – that you'd otherwise have to pay a large amount for.

Media or public event is an event or activity that exists for the sole purpose of media publicity. It may also include any event that is covered in the mass media or was hosted largely with the media in mind. Media events may center on a news announcement, a corporate anniversary, a press conference in response to a major media event, or planned events like speeches.

Video- When you use video on your website, you have a powerful tool that can increase the popularity of your web pages. Whether you want to earn money, share your knowledge or increase page views, you can use video to create a dynamic web site attracts and keeps visitors. There are many ways to use video to educate people on how to use your information. You can also use video to turn a static website into a dynamic, interactive destination.

An effective awareness-raising campaign strategy will employ a variety of different communication approaches and techniques to ensure that the central message is received and understood by a diverse audience.

ANNEX 1: TRAINING MATERIALS

The following annex is intended to give an overview of basic area of expertise and know-how needed to successfully tackle RES and EE project implementation in local environments. Principles and methods presented were used, tested and upgraded in the process of implementation of the Green Partnerships project and present a joint know-how, experience and competence overview of the project partners. They do not present an exhaustive list or academic level of presentation of content; they are intended for a basic overview with references to more sources of information on specific topic. They are all supported with relevant links to help you upgrade your know-how and understanding of the area and be able to make the most of the materials.
All training materials follow the same guidelines covering the following outline of the training courses:

- Target Audience
- Learning objectives
- Knowledge/Skills/Competences to be addressed
- Duration
- Course Contents
- Training materials
- Training approach/methods and tools
- Facilities/infrastructure
- Trainers profile
- Train the trainers activities
- Evaluation – Reporting

Awareness raising

The fight against climate change is a challenge that, if it is to be properly addressed, requires a technological, social and cultural revolution. The need to tackle global warming cannot be separated from the quest to make use of more sustainable energy sources and, therefore, solutions to both problems – which are interlinked – must be found. The scope for action at the local level is wide and local actors should assume their share of responsibility in fighting climate change. Cities and municipalities must have the necessary instruments at their disposal, so greater visibility and recognition of the services of energy agencies must be fostered.

Main keys:

- **Information**
- **Communication**
- **Education**
- **Doing more with less**
- **Changing behaviour**

Energy efficiency in the organizations cuts costs, improves competitiveness and helps safeguard profits and employment.
Before choosing the right tool the target group should be defined. All people are connected to energy

use but usually following target groups are defined:

- **Children**
- **Students**
- **Citizens**
- **Households**
- **Companies (offices, services, industrial…)**
- **Passengers (car users, bikers…)**
- **Elderly people**
- **Public sector**

More info:
http://www.greenpartnerships.eu/wp/wp content/uploads/Green_Partnerships_EWG_Awareness.pdf

Stakeholders involvement

Firstly, when it comes to public policy, stakeholders fall into extremely heterogeneous groups (general public, trade and industry, institutions, etc.), which are hard to define. Secondly, changing behaviour means "overturning habits", implying that there must be something in it for each (individual or collective) stakeholder, whether in practical ("it's simpler"), financial ("it's less expensive") or interpersonal ("it changes my relationship with others/my place in society) terms or in terms of values ("it makes sense for me").

1. What involvement is expected? Defining the change
2. Who is in control? Clarifying the driver, his/her mandate and resources
3. Which stakeholders are to be involved? Listing the targets and listening to their position
4. How mature are the targets? Adapting to the diversity of targets
5. What are the relevant tools? Choosing the right tool from toolbox
6. Which communications strategy? Adapting messages to the diversity of targets
7. What is the result? Assessing and measuring the change achieved

More info: http://www.greenpartnerships.eu/wp/wp-content/uploads/Green_Partnerships_EWG_Stakeholders.pdf

Funding

Funding to improve the energy efficiency measures emerges as one of the key points for the municipalities. Formal political decision on the EU's multiannual financial framework was reached at the EU Council on 2 December 2013. Most horizontal EU funds relevant to Energy Efficiency and Renewables like Horizon 2020 and LIFE have been adopted by the European Parliament and Council and the first calls for proposals are being published. However beginning of 2014, Common Programming Documents on Structural Funds were not yet signed between European Commission and individual Member States. For this reason, this document should be considered on the one hand timely but on the other not prescriptive for the reader.

Major funding possibilities that can be taken into account:

- European Regional Development Fund (ERDF)
- European Social Fund (ESF)
- European Agricultural Fund for Rural Development (EARDF)
- European Maritime and Fisheries Fund (EMFF)
- INTERREG EUROPE
- COHESION FUNDS
- Horizon 2020
- The LIFE Programme
- EUROPEAID
- European Local Energy Assistance – ELENA
- European Energy Efficiency Fund (EEEF)
- JOINT EUROPEAN SUPPORT FOR SUSTAINABLE INVESTMENT in City Areas – JESSICA
- CROWD FUNDING

More info: http://www.greenpartnerships.eu/wp/wp-content/uploads/Green_Partnerships_EWG_Funding.pdf

Legislation

The European Union has three climate and energy targets to be reached before 2020: a

20% reduction in greenhouse gas emissions, 20% of energy derived from renewables and a 20% increase in energy efficiency. If these 2020 targets are not met, a sustainable, secure and affordable energy system will be exceedingly difficult and expensive to achieve, but due to the increasing impact of climate change, the European Commission deliver the communication "Climate Proofing for Resilient Infrastructure" in the framework of EU Adaptation Strategies to Climate Change to fill the gap.

In this chapter, in addition to the best European level legislation were considered and identified for each country which integrates Green Project Partnerships, the main guidelines that should be followed and taken into consideration.

More info: http://www.greenpartnerships.eu/wp/wp-content/uploads/Green_Partnerships_EWG_Legislation.pdf

Biomass

Sustainable development has increasingly become a priority in many communities and one of its main elements is related to the production of energy from environmentally adequate sources. In this sense, bioenergy, as energy obtained from biomass, presents itself as one of the most popular alternatives to fossil fuels, with conditions to be an effective solution to the current environmental and energetic issues. In fact, biomass is the only renewable energy source (if used sustainably) that can be converted into gaseous, liquid or solid fuel by means of known technologies for conversion.

Currently, we can use energy produced from biomass in several applications, ranging from heating and electricity production to fuel supply for transport sector. Thus, bioenergy has potentially the ability to offer support sustainable structural development in rural areas.

Biomass is a term used to describe all the (non-fossil) contemporary organic materials that arise from the conversion of sunlight through photosynthesis, including agricultural and forest waste, energy crops and organic waste from industrial and domestic activities.

- **Strategic and economic prospects**
- **Biomass for heating, cooling and producing electricity**
  - **Solid biomass**
  - **Production of biogas**
  - **Decision Steps to Biomass Heating**
- **Biomass availability**
- **Biofuels**
- **Biomass availability in involved countries**

More info: http://www.greenpartnerships.eu/wp/wp-content/uploads/Green_Partnerships_EWG_Biomass.pdf

Energy efficiency buildings

Efficient energy use, sometimes simply called energy efficiency, is the goal to reduce the amount of energy required to provide products and services. For example, insulating a building allows to use less heating and cooling energy to achieve and maintain a comfortable temperature. Improvements in energy efficiency are generally achieved by adopting a more efficient technology or production processes or by application of commonly accepted methods to reduce energy losses. EE in public buildings is necessary: to reduce the CO_2 emissions to the atmosphere; to save money by making a more efficient use of the installations and the equipments, or by using better equipments. By using energy efficiently, also we can achieve a more comfortable working environment and it is a way to clearly identify all the energy costs.

Main topics to consider:

- Legal Framework
- Indoor and Outdoor Energy performance of public buildings
- Energy management in public buildings
- Energy audits and Energy Certification of public buildings

More info: http://www.greenpartnerships.eu/wp/wp-content/uploads/Green_Partnerships_EWG_Legislation.pdf

Public lighting

The costs of public lighting (PL) facilities are an important weight in current expenditure of the municipalities (about 40-60% of total energy costs). Therefore, it is imperative that Municipalities, as local public entities and representatives of participants consuming entities, adopt and implement measures leading to an improvement of the energy performance of PL (and consequently, to a reduction of costs). There are several options that should be considered when discussing energy efficiency in PL, particularly the main measures that can be implemented, especially in what concerns the solutions and technologies available on the market.
Thus, for an energy efficient PL facility, we should take into account the different options available and verify the best solution (technology) that best fits the actual context of each situation.
For a given project situation and traffic intensity different types of lighting are selected, the class is chosen considering the complexity of the layout, traffic control, separation of different types of users and other specific parameters.

Main technologies to consider in PL:

- **LED**
- **Flow regulation systems (FRS)**
- **Remote management systems**
- **RES for Public lightning**

More info: http://www.greenpartnerships.eu/wp/wp-content/uploads/Green_Partnerships_EWG_PublicLighting2.pdf

Solar energy

The sun is a globally accessible renewable energy source, using it right and in combination with the evolving technology can bring a definitive solution to the problems of energy dependence. The Solar EWGs has developed training material to provide the local authorities with the basic knowledge in Active Solar Energy Technologies, to motivate them presenting existing good practices and to provide them useful links for further information, practical guides, legislation issues, existing examples or best cases from relevant applications in the public sector across Europe.

The guide presents alternative technologies/solutions which might be applicable to the local SEAPs including basic principles, benefits and risks, economic and technical considerations which may affect the decision making process.

1. **Energy from the Sun – Basics**
2. **Space heating/cooling, water heating (Active solar thermal systems)**
3. **Electricity production - Photovoltaics**
4. **Water treatment using solar energy**
5. **Solar energy in transport**
6. **Recent developments (Solar electricity storage, Smart grids)**

SOLAR ENERGY Case studies

i. **Solar Energy in transport. A cleaner city: electric buses in Vienna – Austria**
ii. **Solar Power Plant on Elementary School – Croatia**
iii. **Sustainable energy production plant with photovoltaic mounted on the roof of Agios Basileios Town Hall in Rethymno, Crete – Greece**
iv. **Solar District Heating with Seasonal Thermal Energy Storage in Ackermannbogen, Schwabing, Munich**
v. **Solar Building XXI – Passive and active Solar design – Portugal**
vi. **Photovoltaic systems in public buildings, schools and military camps – Cyprus**

More info:
http://www.greenpartnerships.eu/wp/wp-content/uploads/Green_Partnerships_EWG_Solar.pdf

Further guides and training
materials on a number of knowledge topics, useful for Local Authorities implementing their energy strategies, may be found at the Green Partnerships website (www.greenpartnerships.eu).

ANNEX 2: PUBLIC PRIVATE PARTNERSHIP AGREEMENT TEMPLATE

What should include a good contract?

The contract must be based on the basic principles of the EU Directives and those defined by the procurement regulations of each country.

The contract should define in a clear and detailed way:

- The need for hiring
- The object of the contract
- Aspects or technical conditions to ensure the development of the tasks:

a. Works / installations: first, is need the writing of the project of the work or the installation to develop by a qualified professional. After, the project must be approved by the administration that promotes the recruitment of these works /installations.
b. Services: the document of technical specifications of the contract should detail the tasks to develop, the methodology to be followed, and the deadlines and schedules to guarantee, etc. Those aspects can determine a better or worse price of the service offered by the bidder.
c. Supplies: the document of technical specifications of the contract should detail the characteristics of the product to be supplied, which will also determine the price offered by the bidder**.**

The contract also should:

- Regulate the obligations of each part, public institutions contracting and suppliers, and define the mechanisms to penalize breaches.

- Define the evaluation criteria that allow to obtain the most advantageous offer from the point of view of price, quality of service / supply / work, or both aspects. These criteria should be linked with the object of the contract and the conditions detailed in the technical specifications document, or bid price. Those criteria will evaluate how to improve what has been defined in the specifications document, and that should be guaranteed as a minimum.

What to consider from the point of view of municipal responsibles?

The Mayor, maximum institutional representative, is responsible for authorizing and approving the execution of contracts.
At the technical level, it will be necessary a person or a team responsible for preparing the technical specification document, and once signed the contract, this person or team will be the responsible to monitor its development.
During the preparation, approval and advertising contract is advisable to use ICT tools to expedite the processing.
Portugal is one of the EU countries with more experience in processing electronic contracts with the use of specific ICT platforms.

What to consider from the point of view of the supplier?

- The accessibility to the call for the recruitment and to the administrative and technical specifications documentation, published in the contractor profile of the administration interested in hiring.
- The objectivity of technical and evaluation criteria defined in the specification document, that provides equal opportunities for companies in the sectors related to the object of the contract.
- Compliance by the Contracting Authority of payment deadlines established with the successful bidder.
- Ability for the supplier to comply with the technical specifications and the proposed improvements.

Examples of energy saving and energy efficiency criteria included in some service contracts for the maintenance of municipal facilities in Granollers:

A. General criteria:

- Eco efficiency of products, equipment and systems used (lamps, LED lighting, types of heating and cooling systems, etc.)
- Environmental management of other topics derived from maintenance: dangerous waste generation within the repair of faults, replacement of equipment; GHG emissions generated by the transport of materials, or the displacement of personnel in motorized vehicles, etc.
- Adoption of the principles of environmental policy and environmental management procedures implemented in the activities and buildings of City Council.

B. Specific criteria:

- Public lightning: telemetry consumption of different points and lighting panels to follow the evolution of energy savings compared to previous periods, taking into account the actions of replacement of lighting, reduction of contracted power and adjustment of the luminic level detect incidents consumption, and improve response times to breakdowns.
- Heating and cooling systems: application of optimization criteria and energy performance of facilities, through the installation of remote computers that control the operation of the system considering the thermal demand of the building, the internal and external temperatures, and the users level of comfort.
- Solar thermal installations: criteria applied to improve the energy efficiency of facilities.

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