

# Energy Efficiency in Municipality - Training and Exchange of experience



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**EnercitEE**



**EEMTE**  
Energy Efficiency in Municipality -  
Training and Exchange of experience



**Oskarshamns  
kommun**



**CLUSES**  
*Haute-Savoie*



**prioriterre**  
Information et Conseil  
Énergie Eau Consommation



**City of Leipzig**

**Partners**

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# Introduction

The EU Climate and Energy Package is considered to be the key to an energy efficient and low-carbon Europe. The three overall objectives have become generally known as 20-20-20 targets: a 20% cut in emissions of greenhouse gases by 2020, compared with 1990 levels; a 20% share of renewables; and a 20% cut in energy consumption.

EnercitEE identify, analyze and transfer good practices, foster the exchange of experience and carry out light pilot implementation to increase the level of Energy Efficiency of local authorities and their citizens. Practical guidelines and policy recommendations produced within EnercitEE will provide valuable assistance for European regions aiming to improve their energy performance and policies.

EnercitEE is to improve EE for municipalities as well as for the citizens. Within EnercitEE there are 11 sub-projects aiming at reaching the 20-20-20 targets. One of the sub-projects is EEMTE, Energy Efficiency in Municipality, Training and Exchange of Experience.

## Scope

Know-how of actions to reduce energy consumption and greenhouse gas emissions being the main objectives of the EU Climate-Energy Package is essential to improve energy efficiency and reduce greenhouse gas emissions to the atmosphere.

The strategic documents of the European Union emphasize the role and importance of the public authorities at all levels, particularly local authorities, who are directly involved in the planning and implementation of management actions to improve energy efficiency.

Previous actions to increase energy efficiency at the local level were conducted in an uncoordinated manner, which weakened their effectiveness and efficiency.

The need to acquire the knowledge by the representatives of local authorities and public sector workers and to share the information, experiences and best practices on measures to improve energy efficiency is needed due to the different levels of advancement of individual EU countries and regions.

## Our Objectives

The aim of the EEMTE subproject is joint development and improvement of training instruments and tools for authorities and public administration staff. The project partners will cooperate with educational institutions and non-governmental organizations (NGO's). Complementarity of problems and actions taken by the project partners in the development and improvement of training instruments is a guarantee of effective cooperation and interesting exchange of experience. Methodology and training instruments developed within the project will be promoted and made available to local stakeholders (public authorities of different levels), being an element of exchange of experience and good practices. Measures implemented under the project will be summarized in a jointly published manual.

The partners of the EEMTE project have chosen different activities that complement each other and can be informative and inspirational to the others. The background, the activities and methodologies as well as the lessons learned are presented in this brochure. The transferred experiences are given in common conclusions.

## Regions

1. Saxony
2. Småland/Blekinge
3. Haute-Savoie
4. Lower Silesia

## Partners

### Jelcz-Laskowice

The Commune of Jelcz-Laskowice has a population of nearly 22,000 people, including the town itself – approx. 15,000, and 15 villages inhabited by approx. 7000 people. Since 2001 pursuant to the Ordinance of the Ministry Council, in Jelcz-Laskowice there has been operating a subzone of the Wałbrzych Special Economic Zone, which seats a number of foreign companies developing production in the field of modern technologies. In the first quarter of 2011 opened the Ecological Education Centre, which conducts promotional, informational and educational activity in the local and regional scope. Along with the universities and partners from the NGO sector and businesses operating in the commune, the Commune conducts numerous social actions aiming at raising awareness of the inhabitants in terms of natural environment protection. Commune of Jelcz-Laskowice is a partner of the subproject SP 9 RIEEB EnercitEE.

### Leipzig

On the 19th March 2008 the resolution was passed that the City of Leipzig would participate in the "European Energy Award" (EEA). An important area of evaluation in the EEA are the communal buildings and installations. Their energy management lies largely with the building department (department of Technical Facility Management).

The rational use of energy through the influence of user behaviour and in general the saving of energy in communal buildings is part of Leipzig's energy guideline. For new construction and complex renovation of communal buildings the resolution on passive houses has been implemented since 2008. The first buildings erected according to passive house standards will be completed within the next one to two years. Planning is currently running for a total of seven buildings. Progress reports regarding passive houses erected in Saxony have already been introduced and discussed in the scope of the consortium "Communal buildings and installations" within the EEA.

## Cluses

The Municipality of Cluses is a central city located in an urban valley area in the Alps region of Mont Blanc. Cluses is organizing one of the biggest free festival in France called "Musiques en Stock". To reduce its carbon footprint, the city launched an action plan: In the municipality the 380 officers are informed and trained about sustainable development issues. The citizens have been consulted to give a social and living vision of the project. Twice a year, elected officials and technicians of Cluses exchange good practices on sustainable development with 2 other cities: Beaverton in United States and Trossingen in Germany. Cluses will be able to communicate to the whole population of the city and beyond to the public coming from all over the region to the festival. Cluses will organize round table seminars to exchange experience locally and nationally and will share best practices with the European partners on method implementation. Cluses is partner in EnercitEE call 1<sup>st</sup> project.

## Oskarshamn

The Municipality of Oskarshamn has the municipal slogan "The Municipality with Energy". Energy issues and energy efficiency is of utmost importance. Oskarshamn is the host of the Energy Commission in the municipal network UBC – Union of the Baltic Cities. The municipality of Oskarshamn is involved in a number of energy efficiency projects. One of the projects is the lighting project "LED – Light in Public Space" in the South Baltic Programme where Oskarshamn is among other things looking at lighting possibilities in rural areas and is also responsible for communication and dissemination. Another project is a water purification project called "ITEST" - Increased Technology and Energy Efficiency in Sewage Treatment, which is an environmental and energy efficiency project within Life+. The municipality of Oskarshamn has also been active in the national programme "Sustainable municipality" arranged by the Swedish Energy Agency.

## Prioriterre

Prioriterre is a non-profit organization that works to minimize environmental foot print. Prioriterre aims at sustaining and protecting planet's natural resources by encouraging each citizen to change their habits on energy, water and material consumption. For this, Prioriterre provides neutral, objective and free information and advice to all public. Founded in 1983, Prioriterre has experienced experts on EE issues and counts numerous members (citizens, local authorities, municipalities and private companies). Their main actions concentrate on advising and raising awareness of every citizen by leading targeted campaign, informing through documentation, conferences, workshops, by supporting local actors in their sustainable plan and by providing specific training to enterprises, municipal staff on a wide range of EE topics. They have been supporting different cities in defining and implementing an SEAP or energy climate plan.



## LSPP - Activities / Results

The challenges posed by the need for implementation of the European and national energy policy objectives (increased energy efficiency, energy security, reduction of energy consumption and increase of the share of energy from renewable sources) - at the local and regional levels - make it necessary to prepare competent public administration staff that are aware of the objectives.



The Commune of Jelcz-Laskowice, by joining the project EEMTE EnercitEE, was aware of the fact that in the face of an increasing number of regulations and new legislation on the broad energy law transferred to the local level, it is essential to facilitate local government employees with the necessary knowledge, competence and abilities. The only thing left to decide was the method and extent of accomplishing the main goal, which is formulated as **ENHANCING THE KNOWLEDGE AND COMPETENCE OF THE PERSONNEL OF LOCAL GOVERNMENTS ON ISSUES RELATING TO THE IMPLEMENTATION OF ENERGY LAW AT LOCAL LEVEL.**

Based on the theoretical models described and tested in conjunction with the analysis of the real needs and opportunities available to the Commune of Jelcz-Laskowice, it has been decided to implement a training project by the modified learning method of David Kolb.

According to this model, all forms of knowledge transfer (training courses, lectures, classes, workshops and presentations) should be interactive.

The model, according to which the project EEMTE was carried out in the Commune of Jelcz-Laskowice, consists of four elements:

1. experience
2. theory building
3. testing in practice
4. reflection



The project, according to Kolb's theory, may start at any point, but with the assumption that each new point is taught through these four stages.

In the case of the EEMTE project carried out in the Commune of Jelcz-Laskowice, the training cycle was initiated with experience (we referred to previous experiences of the project participants in order to determine their needs, clarify the main objective and make the appropriate selection of training tools. Then, experts and consultants were chosen, who prepared the manual (theory building) on the basis of which was carried out a series of training events (lectures, workshops, exercises in task groups) (tested in practice), to be topped by an independent preparation by the participants of the training materials for the development of the resolution project - planning document entitled "The draft guidelines for the Commune of Jelcz-Laskowice plan of supplying heat, electricity and gas fuels" (reflection).

In preparation for the EEMTE project in the Commune of Jelcz-Laskowice it was assumed that it will be a start of an ongoing process of developing the knowledge, competence and skills of the staff of public administration involved in the actions taken by the local authorities in terms of planning, implementation and evaluation of the effectiveness of the commune's activities under the applicable energy law and the identified needs of the residents.



Stages of the training project implemented by the Commune of Jelcz-Laskowice within EEMTE project proceeded as follows:

1. identification and analysis of training needs,
2. definition of objectives and communicating them,
3. decision on the type of training and training methods;
4. selection of trainers, consultants, experts and coaches;
5. development of schedules, timetables of classes,
6. preparation of the program, selection of exercises, case studies, examples, individual tasks, study visits, preparation of teaching materials for participants;
7. development of the assessment process and tools both in terms of strengthening the motivation of participants and verifying the prepared program;
8. conducting training courses and workshops, and implementation of study visits and work in task teams;
9. supporting participants in creating Post-Training Action Plans, and supporting the active participation of trainees in the process of effectiveness assessment, along with the preparation of an adequate post-training report by trainers.

› Identification of training needs covered system activities involving the determination of the training projects for specific groups of potential recipients (in this case, the employees of the Municipal Office in Jelcz-Laskowice). The result of carrying out the identification of training needs was

creating a document "Training Plan" (taking into account the financial and substantive dimension). The level of determining the training needs was general and was reflected in the content of the prepared application form of the subproject SP7 EEMTE EnercitEE

- › Analysis of training needs was the first stage of the training project implemented by the Commune of Jelcz-Laskowice within the EEMTE. The result of the analysis of the training needs was defining training objectives and identifying all factors of effective implementation of the training process.

Analyzing a particular training need, it is good to recognize in advance all the modalities of the future training. There are at least five standard areas where common problems or important factors appear:



- cultural factors within the organization and within the trained group,
- factors associated with interpersonal relations in the group of participants, but also with other employees the participants work with on a daily basis,
- factors relating to the transfer of skills acquired during the training to the processes / activities carried out after the training, in the participants' environment,
- organizational and logistic considerations,
- substantive circumstances directly related to the issues raised in the training.

Arrangement of the training program structure in the best way in terms of objectives and conditions of the EEMTE project was quite complex. It had to take into account many elements, such as:

- characteristics of the trained group relating to the suitability and competence of the participants,
- the range of training methods (lectures, classes, workshops, study visits),
- program considerations resulting from the topic of training courses under the project EEMTE,
- available training infrastructure,
- training program,
- selection of contractors (lecturers, experts, consultants).

The clear structure of the program makes it easy to verify and modify it, also for persons controlling or approving the given program for the implementation or funding.

It was also agreed that the training project will be evaluated by the four-stage model for assessing the effectiveness also used for formulating training objectives:

Stage 1 - The positive response of participants to the training.

Stage 2 - Increase of competence in terms of knowledge, skills and attitudes.

Stage 3 - Application of the acquired skills in the workplace and in daily activities of the trainee.

Stage 4 - Improving performance of conducted activities.

Professional and thorough preparation of training content and activities for the participants is one of the most important elements for the success of educational training. Each training carried within EEMTE project consisted of three parts:

- introduction / statement to explain the task to the participants (naming what is the purpose of the lecture, exercise, workshops), stating how it should be done and what the focus of attention is;
- implementation of the activities provided in the form of training tasks, with the support and control over their conduct on the part of the trainer;
- closing / summary of an evaluation of the task performed by the participants, discussing the conclusions of lectures, classes, workshops, and highlighting the key elements to which students should pay particular attention.

A key role in the training project implemented by the Commune of Jelcz-Laskowice played adequate preparation of training materials, and in particular the manual " Energy Planning in the Commune. " As part of this activity, the following actions needed to be done:

1. designing educational materials for all participants, in such a way that they maximally support the whole process of learning and the use of them after training,
2. selecting (creating) additional teaching resources to support the participants and the implementation of the training process,
3. designing and preparing various types of own learning materials.

Simultaneously, efforts were made to assure that the teaching materials distributed to participants at the beginning and during the course meet the basic requirements, such as:

- Requirement of relevance - the content and form of teaching materials should reflect the competence gaps discovered during the Training Needs Analysis, but should not include any redundant or excess content (adequacy of examples, case studies, problems, suggested solutions and methods).
- Requirement of completeness (of the content of the materials) - the materials should be the foundation for all issues covered in the classes, so that the participants could find the context and space for notes, in close relation to each area of knowledge.
- Requirement of being up-to-date - the concepts, models, research, and other components of content included in the training must be up-to-date.
- Requirement of attractiveness - all materials, first of all in terms of form, should be visually and operationally attractive to participants.
- Requirement of clarity - materials should contain all the necessary explanations and links to sources of knowledge, as well as present the content in a clearly structured manner. A very

important element is also the use of appropriate language to present the content in the materials. On the one hand, it should be as simple as possible, on the other hand it should have an adequate level of expertise and business-related terminology.

- Requirement of portability - the materials in terms of form should be made in a sedulous, neat and businesslike manner. This ensures their utility value and convenience. They should be designed for heavy-duty not only during training.
- Requirement of supporting the implementation - the learning process does not end when the participants finish classes. After the training, they should have a high ease of returning to training materials, finding quickly key content or their own notes. Particularly important are the elements of materials that refer to the solutions, suggestions, or ideas developed by the participants during the course.

4. Teaching aids - for each course various types of teaching aids were used; whether to activate the participants, or to extend the scope of their perception by additional senses. They were mostly used during the workshops and exercises in the form of charts, models, diagrams, and during study visits, when the trainees had the opportunity to approach a device or a technical solution, often for the first time.

On the subject of assessing the effectiveness of training, the model of Donald Kirkpatrick was used as the basis. It defines both the subject of the assessment and the logics of training as an investment and process of changes. When designing activities and tools for the effectiveness of training, according to this model, the following rules were applied:

- pragmatism - adjusting to the realities and the current requirements and trying to always keep in mind the objectives of the evaluation itself, namely the purpose and the recipients of the training project;
- credibility - training courses can be a very effective tool of influence, which can be proved not only by the training result itself, but also by a logical and coherent action of cause and effect;
- process-awareness - the effectiveness evaluation is not an individual action but a process involving at least several actions. The training project evaluation should be seen in at least four aspects:
  - 1) reactions of participants,
  - 2) teaching effect of the course itself,
  - 3) implementation of new skills after the training,
  - 4) the final result, e.g. a change in methodology, change of attitudes, etc.;
- cooperation - from the very beginning, the assessment plan should include all the partners of the training project; preparing them, gaining their commitment and coordinate their participation in the process of evaluation and self-assessment;
- flexibility - excessive unification of tools leads to errors. Potentially, for each training a new tool should be designed, even if it is just a new version of the same tool. It should not be assumed

that one approach will automatically prove well elsewhere.

Description of the training project "ENHANCING THE KNOWLEDGE AND COMPETENCE OF THE PERSONNEL OF LOCAL GOVERNMENTS ON ISSUES RELATING TO THE IMPLEMENTATION OF ENERGY LAW AT LOCAL LEVEL" carried out by the Community of Jelcz-Laskowice within the EEMTE EnercitEE

#### 1. Preparatory activities

- Identification of Training Needs
- Training Needs Analysis
- Defining objectives and communicating them

#### 2. Implementation activities

- Deciding on the type of training and training methods;
- Selection of trainers, consultants, experts and coaches;
- Development of schedules, timetables of classes,
- Preparation of the program, selection of exercises, case studies, examples, individual tasks, study visits, preparation of teaching materials for participants (developing a unique manual: "Planning in the Commune");
- Development of the assessment process and tools both in terms of strengthening the motivation of participants and verifying the prepared program;
- Conducting training courses and workshops, and implementation of study visits and work in task groups (4 days per 8 hours of lectures, 3 days per 8 hours of workshops, two study visits - including one visit abroad to the project partner in Oskarshamn and one domestic visit in the Euro-Center SA Katowice, 16 work team meetings to develop materials for "The draft guidelines for the Commune of Jelcz-Laskowice plan of supplying heat, electricity and gas fuels");

#### 3. Evaluation activities

- Evaluation of the training effectiveness (exam carried out on 9 April 2013)
- Supporting participants in creating Post-Training Action Plans, and supporting the active participation of trainees in the process of effectiveness assessment, along with the preparation of an adequate post-training report by trainers (public discussion of the prepared material and periodic updating of the document)
- Preparation and development of materials for the draft resolution: " The draft guidelines for the Commune of Jelcz-Laskowice plan of supplying heat, electricity and gas fuels "

The training was attended by a total of 60 people, including 10 participants, who have been taken the final exam of the training project.

As part of the training project, one good practice was developed at regional level - " Team for planning and energy management in municipality " (Creation of the interdisciplinary team for planning and energy management in municipality).



## SPP<sub>2</sub>

The City of Leipzig first developed a training concept for different target groups of civil servants in municipal buildings – on the example of the first passive house school in Leipzig – the Wilhelm-Ostwald-Gymnasium (secondary school) – see photo below.



*First passive house school in Leipzig – view from house II to house I: Wilhelm-Ostwald-Gymnasium 2011 after refurbishment*

Due to the enormous changes in buildings because of increasing legal requirements and self-imposed obligations and regulations regarding the energy efficiency of buildings belonging to the municipality of Leipzig (e.g. passive house) it is not possible anymore to trust traditional knowledge and behavior.

The energy efficiency of communal buildings has to become accessible, through the exertion of influence on the user's behavior as well as by influencing the actions of the operators. To achieve this, various educational programs were implemented for those civil servants who have an influence on energy efficiency of building usage within their range of work.

In Leipzig four pilot seminars were carried out.

Janitors, facility managers, personnel of schools and the administration of the municipality were mainly targeted. During the seminar the subject was "Passive houses – principles and particularities from the execution of building work to its final use". A special reference was placed on the topics concerning the consumption of heating and the behavior regarding the ventilation as well as handling of hot weather during summer.



At the same time, the backgrounds and objectives concerning the energy policies of the city of Leipzig, including instruments such as the resolution on passive houses, were explained.

Four professional excursions, which were mainly taken advantage of by the building authorities, complemented the seminars. The excursions especially served the purpose of exchanging experiences and led to the university campus (focus: energy management), to the HTWK (Leipzig University of Applied Sciences, Faculty of Mechanical and Energy Engineering – focus: actual situation and the key aspects of teaching and research), to the first Saxon passive house school in Grimma (focus: experience during the period of commissioning and with the inclusion of the administrative staff).



## FOCUS ON:

### The knowledge base

The design of long-lasting instruments for the consolidation of the knowledge base and for reference like the user manual for passive-house-schools developed for the Ostwald-Gymnasium, which needs to be adapted and further developed for new or renovated buildings in Leipzig is an important condition for the long-term effectiveness of the started activities.





1. Site-visit to the newly built campus of the University of Leipzig 14<sup>th</sup> Dec 2011



2. Pilot-seminar for employees of the building department and the office for youth, family and education of the municipality 24<sup>th</sup> May 2012



3. Site visit to the 1<sup>st</sup> passive house school in Saxony – "Waldschule Grimma" (Refurbishment 2006-2007) 7<sup>th</sup> Sept 2012



4. Pilot-seminar for the teachers of the Wilhelm-Ostwald-Gymnasium 11<sup>th</sup> Sept 2012

## Methodology

The pilot seminars were carried out based on parts of the previously developed training concept. Chosen contents of the modules A, B, C, and Z correspond with the following matrix.

| Target group:            | Module A | Module B | Module C | Module D | Module E | Module Z |
|--------------------------|----------|----------|----------|----------|----------|----------|
| Janitors                 | X        | X        | X        | X        | X        | X        |
| Operators                | X        | X        | X        | X        | X        | X        |
| Educational personnel    | X        | X        |          |          | X        | X        |
| Administration of school | X        | X        |          |          | X        | X        |

A: Overview and basic idea regarding the topic of passive houses

B: Particularities and basic principles of passive houses

C: Backgrounds regarding the quality management

D: Building equipment and appliances in passive houses – different concepts

E: Influence of the user behaviour on energy efficiency, practical consolidation

Z: Summary and feedback

The number of participants of pilot seminars and site-visits ranged from 19 to about 100. The duration of the trainings (3 to 6 hours) as well as the number of participants depended on the target group, its options on implementing the content into their daily work routines and the recognition of benefits for the individual work (through the participants as well as their superiors).

So it was an advantage that – initiated by the participation of the city of Leipzig in the European Energy Award – the trainings for janitors regarding energy efficiency have been carried out annually for some time. Due to this fact, the trainings for janitors had the highest attendance. To release administrative staff from work for specially targeted trainings, which have not been set down in the further education plan of the city yet, lies in the responsibility (and therefore the conviction) of the superior level of management. It was possible to arrange and realize the training for the teachers though through advanced planning within the frame of the obligatory teacher training and in close coordination with the school management.

All the pilot seminars were adapted specifically to the target groups regarding their content and complemented with chances for discussions and practical parts. Customarily a guided tour through the school building – including the technical quarters – was carried out afterwards. Especially well taken was the conduction of a Blower-Door-Test for the better understanding of the air



tightness criterion for energy efficient buildings. Example for good practice (see picture below)

The site-visits were mainly used for the exchange of experience with other public institutions regarding the topic of the energy efficient operation of buildings. The visit of the Passive house exhibition of the Saxon Energy Agency (SAENA) was connected with an additional expert seminar for employees in the building department in cooperation with the SAENA.

An online-module may support the civil servants with the consolidation and reactivation of the gained basic knowledge. Belonging to the SAENA based network (containing offers for trainings for civil servants) it has been developed parallel to the pilot seminars and was published on the training platform "Energy Efficiency in Saxony". From there important links lead on to the climate protection activities of the city of Leipzig as well as to further public specialized content.



1. Pilot-seminar (for janitors) – demonstration of a Blower-Door-Test 18<sup>th</sup> Nov 2011

## Lessons learnt

Determining for the long-term effectiveness of the started activities will be the way in which the pilot measures can be consolidated. Important conditions of it include:

- The approving of community politics regarding the acceptance of basic training for employers, for them to recognize possibilities of influence on energy efficiency in their work and its implementation in all management levels.
- Future networking of educational programs with further processes concerning energy efficiency and technical matters such as the European Energy Award, the implementation of the climate protection concept, the implementation of the passive house regulations and the planned monitoring of passive house schools.
- The design of long-lasting instruments for the consolidation of the knowledge base and for reference like the user manual for passive-house-schools developed for the Ostwald-Gymnasium example for good practice, which needs to be adapted and further developed for new or renovated buildings.

The following documents, developed by the Leipzig building department can be used as a template, developed further and generally used for further work:

- The passive house user manual for the Ostwald
- The passive house-training-concept for different target groups in municipalities
- An online-module for consolidation and reactivation of the gained basic knowledge published on the training platform "Energy Efficiency in Saxony".

The consideration of the following further requirements may help other municipalities to promote the further education of their staff regarding energy efficiency:

- Goal oriented and adapted to the target group (depending on the concrete task)
- "Correct" – meaning the broad addressing and acquisition for the participation of staff in courses = requirement for an efficient implementation (costs/ participants)
- Regularly repeated, at least once a year
- Integration in a regular format into the further education programme of the city
- Further education is to be understood as a personal gain,

Recommended: confirmation of participation,

- No cheap offers but high quality instructors,



Economically priced offers through the tightening of content within a topic rather than through lower depth

- Professional coordination and cooperation is necessary (exchange of the colleagues responsible for the subjects with the personnel responsible for further education)
- Utilising professional cooperation from professional networks and professional associations:  
e.g. in Saxony: Saxony Energy Agency (SAENA), the Association of Saxon Training Providers VSBI  
e.g. in Germany: German Network of Energy Councilors (DEN), German Institute for Urban Studies (DIFU)
- Using of chosen memberships for professional information  
e.g. International Passive house Association
- Regular evaluation necessary for a continuous improvement.

Exchange of experience is one of the main conditions for the long-lasting success regarding the introduction of individual structures for energy efficiency.

- Exchange with other towns & cities and public institutions on a specifically professional work related level (e.g. professional exchange of big cities as participants in the European Energy Award – EEA, professional excursions on specific specialized sub-subjects) and via the German Conference of Local Authorities (Deutscher Städtetag):
  - › Sharing of common documents, professional information and instruments
  - › Exchange of experiences regarding further education and good practice
  - › Common development of custom made further education programs
- A continuous exchange of staff from different departments and offices: Further educational events across structures with workshops on targeted topics which benefit from an exchange with each other (e.g. administration and operators of schools – working together from an agreed upon course of action from the stage of planning, implementation until the day-to-day operation of newly renovated or new schools), this serves the:
  - › Exchange of professional knowledge and professional information, which may not normally affect the other person in his / her work
  - › The better mutual understanding, e.g. regarding decisions
  - › The reduction of prejudices, e.g. regarding modern technologies/ types of building like passive housing
- Internal newsletter which regularly advises on new matters, regulations, political framework conditions, funding, etc. (useful as a selection from countless existing newsletters which not every member of staff can read regularly – personnel responsibility)

## SPP3 & SPP5

Prioriterre is a non-profit organization that works to reduce environmental foot print. Prioriterre aims at sustaining and protecting planet's natural resources by encouraging each citizen to change their habits on energy, water and material consumption. They organize a lot of events every year, thus they wanted to be taught on organizing events in an eco-friendly way. Once trained, they decided to adapt this training and suggest it to municipalities, among others, as it is them who are involved in almost all events that occur in their city (umbrella events, festivals, etc.). Then, with Agenda 21, they are all the more concerned by the organization of eco-events. Therefore this project enabled Prioriterre to propose this training to municipalities and other private organizers of events and music festivals.

The municipality of Cluses has decided to apply Kyoto Protocol by setting up an Agenda 21 (energy audit of public buildings, carbon footprint of the city). With the project, all the staff of the city as well as the private partner working on the organization of a music festival (scene installation enterprise, local suppliers of material and food) which represent a team of 500 people, all together will be trained on energy efficient behaviour and methodology. Cluses General Director of services being the president of the association of GDS of France, will communicate to all the members all over France on this methodology. Moreover, Cluses and Prioriterre will organize, in partnership with Conseil General of Haute-Savoie, a round table with all the organizers of Haute-Savoie music festivals.

During this project Prioriterre has developed and improved a training concept and material for municipal staff and private organizers from a method called ASSER, which was developed by an external expert, ATEMIA. Prioriterre, together with Cluses, established an ACTION PLAN on the implementation of the project locally. Nine trainings are to be carried out for a total number of 280 people.

The objectives of these trainings are:

1. Understanding and handling the key sustainability issues related to events.
2. Learning how to organize an eco-event.
3. Adopting the eco friendly principles easily thanks to exchanges between speakers and trainees.
4. Practical learning: case study on eco-event organization.

Six training sessions have been carried out on eco events organization with municipal staff since the beginning of the project; one more is planned at the beginning of 2013. The organisations concerned in the frame of the trainings include Cluses municipality, La Roche sur Foron municipality, Samoëns municipality, Le Grand Bornand festival, Banque populaire (bank), Annecy City and Meythet City.



## FOCUS ON:

### Eco practices

Prioriterre trained local actors and professionals and coorganized with Cluses a successful round table in which these actors were present. It was decided to organize working groups to go further and share best practices to further reduce their environmental footprint.

Cluses trained its agents, volunteers of the festival and its subcontractors, which resulted in lasting up a dynamic and a state of mind around ecoevent. This approach is now recognized regionally and nationally.



spp3 & spp5

## Methodology

The training programs are adapted from the ASSER method, and consist of different parts, as follows:

- Raising awareness on sustainable development
  - › Main current issues: climate change, loss of biodiversity, social inequalities
  - › Main sectors of intervention: energy, transport, waste, food
- Eco-friendly events: presentation, steps, importance of eco-friendly actions, tools & resources.
- Definition of sustainable development strategy with a dual approach
  - › Organizational: program, technical needs, communication, raising awareness, etc.
  - › Thematic: mobility/transport, waste, energy, water, food, communication, etc.
- Innovations and ecological solutions: eco labels
- Case study
  - › Identify relevant actions
  - › Make up an operational action plan
  - › Identify the useful data needed to be collected for assessment
  - › And/or: assessment of eco-friendly actions with the self-evaluation tool

The trainings are carried out on one day and so far 258 people have been trained. The number of people varies according to the target groups. One important thing is to ADAPT the training day according to the target group. For instance, when it is for municipal staff, the training has to be carried out during the week as it is part of their working time. On the contrary, when volunteer workers are to be trained, it has to take place during the weekend. -> **Good example**

Prioriterre also organized a round table at the end of 2011 in order to get together the different actors trained so that they exchange their different experiences and perception. Another round table is planned for December 2013. -> **Good example**

Good practice: "Le climat entre nos mains" website.

"The climate in our hands" is a webtool that has an objective to consolidate citizens who wish to commit themselves to protect our planet and its climate through actions and involvement. A behavior audit is to be made by each participant and then a list of behavior changes is to be ticked. The audit is to be done once or twice a year to see if the habits have changed and the CO2 emission or kWh have been reduced.





spp3 & spp5 - methodology

## Lessons learnt

### Barriers / problems:

For the trainings:

One problem encountered was that many organizations were not available for a particular date of training because they had already planned another schedule. The solution we found was to notify them at least 1.5 or 2 months before the training. It constitutes a guarantee of having more people attending.

Another criterion that has to be taken into account is the timing of festivals. Generally speaking, organizers (whether they are public or private) have more time available in autumn and winter, as in spring and summer they are overbooked with the organization of their events.

Finally, it is important to evaluate the number of sessions, which will depend on the number of people to be trained: the more people attend the training, the lighter the training is in content. In smaller groups, it is easier to go deeper in the topics and have specific case study. There is also more time to answer questions.

In the field (festivals):

Cluses could not make a comparison with another festival that would have implemented such practices, so this is a test period.

Then, it is difficult to involve the whole staff, particularly technical services which have a strategic role in the festival organization, as they have their own habits.

Finally to become an eco festival, you need material investments but representatives are not always willing to give additional budget! They need to be convinced. Therefore, Cluses is negotiating for an investment in efficient material. However, then behavior change of the staff is almost integrated.

Other lessons learnt with this project are:

- › Increasing interest of eco friendly aspects of festivals among organizers, especially in the municipalities, as this training addresses Agenda 21 policy.
- › Trainings are effective: Cluses city can show that they have reduced by half their CO2 emissions thanks to an audit they performed after their eco event "Musiques en Stock". This audit is a means to measure the impact of the actions implemented and it is performed on the different intervention sectors: project management, location, program, technical needs such as electricity or food, size and flow management (transport, waste, energy, and water), communication, etc. This audit reports the positive actions implemented and the actions that have to be improved for the next events.



## Exchange of experience + recommendations for the future / for other organizations:

- Exchange of experience is made during round tables. So far one took place in December 2011. Every organizer that was trained makes a feedback on what has been implemented for the events, what went good/wrong, and also what has to be improved. It is a kind of assessment which enables an exchange of experience between different actors. This round table is also constructive for us as we can adapt the trainings according to those feedbacks. The people attending it are not only trainees, but also organizers about to be trained, so that they can get a glimpse of the subject.

Feedback from Cluses – Musiques en Stock:

needs of the organizers, why such trainings are important, feedbacks from organizers (Cluses for ex)

- Recommendations – Steps for the future:
  - › Prepare a training module (+ support material)
  - › Collaboration with municipalities is ESSENTIAL: they are the source of the majority of events. Also to be in contact with festival organizers (volunteer workers)
  - › Propose training dates early enough (at least 1.5-2 months in advance).
  - › Two training dates must be determined when proposing the trainings: one during the week, another during the weekend. Adapt the offer to the demand (municipality staff/ volunteer workers, others...)
  - › Dissemination of the training dates: mail contact, press releases, press...

Once training is carried out, involve the whole staff (difficulties to organize meetings with full agendas) and above all implement project management (monitor technical services).

Involve the representatives (even if the leaders, e.g. GDS, are already involved) in the approach in order to facilitate the negotiations for additional budget for efficient material.

Make an audit during the event/festival to measure the improvements. Data will be useful to promote further trainings.

Organize a round table to gather all actors involved in these trainings for an exchange of experience.

## SPP4 - Introduction and context

### Background of the region

The Southeast of Sweden includes the three counties of Blekinge, Kalmar and Kronoberg. There are several ambitious energy objectives and policies both on regional and local levels in the region. Both the County of Kalmar as well as the County of Kronoberg have adopted climate strategies. The counties of Kalmar and Kronoberg set the target to be fossil fuel-free regions in 2030/2050. The County of Blekinge is on its way to implement a similar document. Already today a high share in renewable energy compared to other regions (65%, EU target is 20%) is used for energy purposes in the counties. The body of acquired knowledge and experiences gained in the region in the past can be transferred to project partners and other regions.

### Background of Oskarshamn

The Municipality of Oskarshamn has the municipal slogan "The Municipality with Energy". Energy issues and energy efficiency is of utmost importance. Oskarshamn is the host of the Energy Commission in the municipal network UBC – Union of the Baltic Cities. The municipality of Oskarshamn is involved in a number of energy efficiency projects, for example regarding lighting, wastewater purification and Energy Performance Contracting. The municipality of Oskarshamn has also been active in the national programme "Sustainable municipality" arranged by the Swedish Energy Agency.

### Planned actions

Oskarshamn, having rich experience in the implementation of many projects related to improving local energy efficiency and environmental protection, aimed at improving the training instruments for public authorities in the area of energy efficiency and energy management in the public space.

Training instruments for authorities and public administration staff in the area of energy management in the public space and cooperation with educational institutions and non-governmental organizations (NGO's) were developed and planned.

# Methodology

Oskarshamn aimed at having seminars for politicians and civil servants jointly in order to raise the awareness of energy efficiency of buildings and of each other's parts in making these actions. The common understanding of life-cycle costs, investments and pay-off and the know-how and experience was on the agenda. The Linköping University, with vast experience in energy systems and working with both industries and municipalities, was hired to plan and give the sessions. The first sessions were planned and promoted. The focus on the first sessions was:

"With increased energy prices and increased awareness about the ongoing climate changes it becomes all more important to find measures that leads to sustainable energy systems in an sustainable society as a whole. There are many measures that both give economic profits and reduced climatic impact. But all measures do not become implemented, despite that they are profitable. How does one go from potential proposals to implemented measures? What is the mystery with driving spirits ? How do we create sustainable energy systems?"

The interest was lower than expected and therefore the first session was postponed. A new date was set and this was promoted. The interest was once again low and the comments from the politicians were that the topic is interesting and important, but it is very difficult to find time for a day-long session. The comments from the civil servants were also about the time. It is a very important topic, but if they take a day off from the core business, the work load is still there when they get back. The sessions were not seen as something positive, rather as an extra chore on top of the busy schedule.

## Rethinking

The educational management at Nova in Oskarshamn decided to rethink the structure and think of new ways to educate both politicians and civil servants, but on their conditions. The solution became web-tutorials, videos of maximum 15 minutes for each subject, that can be downloaded in any place at any time. A sort of "grab-and-go"-style. Both Nova and the Linköping University have experience in e-learning and flexible teaching.

6 tutorials were filmed, 5 in Swedish and one general that is available both in Swedish and in English. Björn Karlsson, professor at the Department of Management and Engineering at Linköping University was the tutor.

The tutorials were uploaded on the website of Nova and promoted via networks as the Regional Counties network of energy and climate advisors, the regional EnercitEE partner Energy Agency of Southeast Sweden and to politicians in all municipalities of the region Småland and Blekinge.

## Sustainable energy systems in practice

Along the experience from the EEMTE project, Oskarshamn also had knowledge from the University of Linköping about implementation of energy efficiency actions when it comes to driving spirits etc. from the study "Uthålliga energisystem i praktiken - implementering av energieffektivitet inom industrier" - "Sustainable energy systems in practice - implementation of energy efficiency in industries".

The aim of the research project was to study the prerequisites for the implementation of the actions for energy efficiency that has emerged at already made industrial analyses in the municipality of Oskarshamn and in the pilot project "Sustainable municipality". Within the project the following was studied:

- › How to work with overcoming the obstacles for energy efficiency work that has been identified in earlier studies
- › How to promote and ease driving forces for improved energy efficiency actions
- › How to create positive prerequisites for decision making regarding energy efficiency.



The focus of the research project was to take one step forward with regards to the answers from earlier studies regarding obstacles and driving forces for energy efficiency. For example, other studies have shown that if there is a driving spirit within the organization, this is very positive for the efficiency work. In this project they analyze how one can acquire driving spirits if there are none and what measures can lead to the acquiring of driving spirits.

The results of the interviews and surveys show - among other things - how energy efficiency primarily is a directorial question; the reason why some companies have succeeded with their energy efficiency work and can be shown as good examples is dependent on the directorate of the industry finding the efficiency a prioritized subject. In the same way the results of the project show that if the organization does not get the assignment by the directorate to make efficiency actions, nothing will happen – no matter how profitable or simple the solutions are.

## Experience

We can see similarities in our EEMTE project activities. It is said that the sessions are important, but the time is not given for it. As a civil servant, you are free to go to the sessions, as long as you still perform all your work assignments. The management is also saying that it is important, but resources such as substitutes are not given.

## Lessons learnt

### Exchange of experience

Oskarshamn arranged a study visit for the LSPP, Jelcz-Laskowice.

The visit focused on taking part of Oskarshamn's projects and experiences regarding energy efficiency, in order to see what could possibly be used in Poland. The visit included, among other things, a presentation held by project manager Jonas Brorsson, Department of Education. The municipality of Oskarshamn adopted the vision "Oskarshamn – an international energy centre, a growth municipality with high quality of life". Based on the vision and changes in the curricula, the Department of Education set a goal to increase children and youth's interest for and knowledge in energy, science and technology. The project "Energy in the School" (Energi i skolan) is an important part to reach the goal, but also strategically important for future competence maintenance for the business community both locally and regionally.

Preschool personnel have been educated and education material was developed in order for the pedagogues to plan their activities and to advocate discussions about raindrops, density, heat etc. The pedagogues have a crucial role and have therefore played an important part.

The visit also included a site visit to a sports arena. Olof Eriksson, the manager of Arena Oskarshamn showed the visitors around the premises. The arena is a multisport facility with ice rink, indoor swimming pool, Sports Park and gym in connection to each other. Arena Oskarshamn was inaugurated the autumn of 2006 in connection to the new swimming pool with an adventure bath stood completed. The staff is actively working with energy efficiency with an energy system connecting heating and cooling, considering their behavior and review of the machine park.

A comment from a civil servant in Oskarshamn was:

- It is interesting and very rewarding that other municipalities want to learn more about the investments and actions Oskarshamn does. The knowledge and the experiences is vast and we should be proud of it.

### Recommendations

When planning the sessions and arranging the web tutorials the following issues became noticeable:

- Top-down or bottom up

Who decided about the action? Has the issue been carried through and implemented throughout the organization? Is there a common agenda?

- Managerial preferences

Are the activities mandatory or voluntary? Are the activities/issues on top of the agenda? Or maybe "a lot of talk, but no actions".



- Flexibility

The message needs to be delivered/available according to the audience. For us a "grab-and-go" style was the answer.

- Resources

Time!! Will the civil servants have substitutes during the training?



### FOCUS ON:

#### Web tutorials

Oskarshamn developed with the help from the Linköping University tutorials, in a grab-and-go style. In order to get the message to the target groups, the information had to be available for the target groups on their terms. Web tutorials were created to be downloaded in any place at any time.



spp4 - lessons learnt

# Summary

## Common conclusions

The project exposed a few problems. It was proved that the activities must be promoted by the leaders and in some cases they should even be made mandatory (e.g. training sessions), otherwise people will not take part in it. It turned out that top management plays a crucial role, and its driving spirit and motivation must follow. Moreover, in order to implement certain measures, the political will or background is necessary.

In terms of training tools (step by step guides for the users), they need to be developed in a way that make them useful after the training sessions (otherwise the participants get all the information during training, but they lose it afterwards). In addition, the measures are to be adapted for each target group (e.g. volunteers at the Eco Event – Musiques en stock – have to be taught in a different way than the regular staff; e.g. in Leipzig the janitors and the staff of the building department).

Although there were different projects, they have the same goal. We share different experiences from the regions and try to think of ways to transfer good practices (e.g. Eco event from Cluses could also be established in Jelcz Laskowice, Leipzig or Oskarshamn; e.g. the building monitoring system from the passive house school in Leipzig to Cluses, Jelcz-Laskowice and Oskarshamn; e.g. videos produced by Oskarshamn in English could also be used in Leipzig, Cluses and Jelcz-Laskowice; training concepts developed by the different partners could be exchanged. However, the training concepts and developed manuals cannot just be translated, but have to be adapted to the local/regional situation (for example: the experts from Poland go to France and learn about a good practice from the French expert; afterwards the French experts will go to Poland and help them with the regional implementation (but it requires time and money – INTERREG VC). For instance, representatives of Jelcz-Laskowice came to Oskarshamn for a study visits to study general strategies on energy efficiency (good practice shadowing, inspiration, exchange of the expert knowledge).

One of the key results of the project is the intensive exchange of knowledge and information on the solutions to improve energy efficiency (energy-efficient buildings, using cost-effective renewable energy sources, the use of best legal and organizational solutions locally and regionally).

Plans for the future include development of a manual, which will constitute a compendium of knowledge on the broad energy efficiency, and delivering it to the interested bodies of local and regional authorities. Then, conducting trainings for local government officials and employees of the public sector, combined with presentations and demonstrations on the basis of the material contained in this manual.

Next step would be creating an information exchange network at local and interregional levels through cooperation between local authorities with institutions to disseminate knowledge on energy efficiency (universities, NGOs, experts).

Finally, it is planned to organize annual information and consultancy meetings dedicated to the issues of implementation of local and regional strategies for actions to improve energy efficiency.

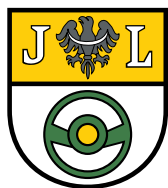






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