Curriculum to Train the Trainer Seminar

"Energy Efficiency, Renewable Energy, Waste and Wastewater Management"

CONTENTS

1   INTRODUCTION

1.1   Target Group

Lecturers, trainers and consultants from the fields of energy and environment from universities, high schools, chambers of industry, commerce and crafts, unions, further education providers and other relevant promotion institutions.

1.2   Teaching and Learning Objectives

Four further training seminars were developed for owners, management personnel and employees of small and medium-sized enterprises:
- Renewable energies and energy efficiency - overview on market situation and funding schemes
- Solar Energy– Technology and Applications
- Energy Efficient Construction and Application of Renewable Energies
- Waste and waste water management and energy

The goal of the Train the Trainer seminar is to provide further training to lecturers and trainers so that they could hold these four further training seminars and trainings in related topics independently with high quality for small and medium-sized enterprises. The Train the Trainer seminar provides information and facts related to four topical focal points and gives pedagogical instructions for the purpose of preparing, holding and post-processing further training seminars for SMEs.

2   TRAIN THE TRAINER CURRICULA

2.1   Learning Outcomes

Learning out comes include that the participants are ready to train, coach and qualify staff of universities, chambers, associations and other institutions on Energy efficiency, renewable energy and waste and wastewater management. After the training participants possess the necessary skills and knowledge related to planning and organizing effective training in Energy and Environment.

Core contents include the key aspects on economic and international developments, Energy efficiency, renewable energy and waste and wastewater management and pedagogical principles of organizing effective training courses.

2.2   Teaching Unit 1: Key figures on Energy Efficiency

Introductory lecture on Key figures on:
- Why should we use renewable energy and energy efficiency measures?
- Overview of the use of renewable energy and energy efficiency measures in small and medium-sized enterprises.
- Market situation, development of renewable energy and energy efficiency in Europe.
- Good examples.

2.3 Teaching Unit 2: Key figures on Solar Energy

Introductory lecture on Key figures on:
- Why Should We Use Solar Energy?
- Applications of Solar Energy, Construction and Functioning of Solar Thermal Systems.
- Structure and Functioning of Solar Power Systems.
- Planning and Dimensioning, Installation, Commissioning and Maintenance.
- Costs and Benefits, Profitability, Market and Support.

2.4 Teaching Unit 3: Key Figures on Energy Efficient Construction

Introductory lecture on Key figures on:
- Overview Energy Saving Measures.
- Insulation Standards in the EU and Different Insulating Materials.
- Determining the Final Energy Demand.
- Optimized Construction in the Planning.
- Overview of the Various Forms of Renewable Energies and their Technical Implementation.
- Near-Zero Energy Houses.

2.5 Teaching Unit 4: Key figures on Waste Water Management

Introductory lecture on Key figures on:
- Issues of economic and international development.
- Cradle to CradleI.
- Waste Management.
- Wastewater Management.
- Biological and decentralized wastewater treatment systems.
- New market segments for SMEs.

2.6 Teaching Unit 5: Pedagogical principles of planning and organizing effective training courses

Lecture on Pedagogical principles of planning and organizing effective training courses. The content of the lecture includes principles of organizing training courses, target group analysis, pedagogical approaches and technical strategies, attitude awareness and motivation, involving participants, traditional lectures, making lectures more interesting, i.e. inserting visual elements like examples, illustrations, figures, tables, videos, Internet sites, etc., case methods, discussions forums, role plays, drama, pedagogy, simulations, coaching, mentoring, individual and group activities, e-learning, use of knowledge bases, leaning from best practices and worst cases, professional visits, course feed-back, further development.
Be particularly addressed the needs of SMEs and participants extraction.
There are plenty of different kind of documents and reports about how to improve the training sessions.

2.7   Train the Trainer Curricula

Duration: 1 day

Programme

9:00   Welcome address
        Introduction to the Train the Trainer Curricula
        Short Presentation of the participants and their expectations

9:30   Introductory Lecture on Key figures on Energy Efficiency

10:15   Introductory Lecture on Key figures on Solar Energy

11:00   Break (coffee/tea)

11.15   Introductory Lecture on Energy Efficient Construction

12:00   Introductory Lecture on Waste and Waste Water Management

13:00   Lunch break

14:00   Lecture on Pedagogical principles of planning and organizing effective training courses for SMEs

15:15   Break (coffee/tea)

15:30   Group activity on pedagogical approaches

17:15   Wrap-up and evaluation of the Train the Trainer course

17:30   End of the Training

2.8   Lecturers sheets

Four further training seminars were developed for owners, management personnel and employees of small and medium-sized enterprises:
- Renewable energies and energy efficiency - overview on market situation and funding schemes
- Solar Energy– Technology and Applications
- Energy Efficient Construction and Application of Renewable Energies
- Waste and waste water management and energy

For each seminar a curriculum and also lecturer's slides were developed which are available for the Train the Trainer seminar. Depending on prior knowledge, experiences and needs of participants appropriate slides for the Train-the-Trainer seminar can be selected specifically from 4 sets of slides with presentations.
Each participant at the Train the Trainer seminar receives a stick with all four curricula and all four slide sets. On this basis and thanks to the preparation by the Train the Trainer seminar the participants can successfully hold valuable further seminars for SMEs independently in the future.

2.9   Course Feedback

The Train the Trainer seminar is completed with an evaluation of the seminar. For this purpose there is a written information sheet which is attached to the present document and is filled in by each participant. Additionally interviews and/or discussions should be held during a plenum with participants and lecturers.

The participants at the Train the Trainer seminar are encouraged always to perform such evaluations during own seminars.

2.10   Certificate

The participants receive a certificate upon completion of the seminar, in which the training contents (main topics) are listed and signed by the training centre (University, Chamber etc.) and the Hanseatic Parliament.

3   LEARNING METHODS

There are a range of exercises the trainer can effectively use in order to involve in the participants as much as possible to the learning process. The best way for adults to learn is when the new course material is based on their experiences, but when there is also left space for the debate among the participants. There are varieties of training methods and together they can give the possibility for a multifaceted understanding of the course material.

Different kind of teaching methods are:
• "Auditory" methods, such as discussions, lectures, using tapes
• "Visual" methods, such as films and other demonstrative processes/tools
• "Physical" methods, such as role playing, group exercises or other physical exercises

3.1   Icebreakers

In the beginning of the session it is important to get participants involved and en-gaged in an activity that requires them to talk and cooperate with the others. Ice-breakers are the simple activities used at the beginning of a session to help partici-pants learn each other's names and/or backgrounds, share their experiences, or introduce the topic of the lecture. The right icebreaker can help to get a positive and enjoyable learning experience for both the trainer and the participants. During the icebreakers participants should connect with at least one other person. Icebreakers should be topic related and at low risk so that participants would feel comfortable and easy. Time used for icebreakers should not be too long compared to the length of the session.

3.2 Lecture

3.2.1 Presentation

The presentation (e.g. PowerPoint™) is used to support the content of the training and thus it should be clear and easy to read. The presentation is designed to be a visual support for both the trainer and the participants.

3.2.2 Figures, Tables and Videos

In order to improve the attractiveness of the lecture and the presentation it would be advisable to include figures or tables or videos into the presentation/ the lecture. Figures and tables illustrate the situations well and thus make it easier for the participants to assimilate the gained information. Presentations of success stories and case studies can be also included to this section. Internet and YouTube offer good opportunity for researching suitable videos.

3.3 Group Work and Brainstorming

Group works can be applied in learning if the trainer wants participants to deal about the issue by debating and discussing. Group work in small groups gives all the participants the opportunity to participate in the exercises and thus express their ideas. In order to get the best out of the group works would be good to get them goal-oriented. The participants should understand the task of the group work at hand, the time-frame and the way of presenting the results.

Brainstorming involves the trainer ask an open-ended question and the participants to come up with as many solutions as possible. The idea of brainstorming is to get participants involved and engaged in the training. Brainstorming should be based on few rules in order to get the best results. Example of the rule could be that there are no stupid or bad ideas.

3.4 Mentoring

Mentoring can be described as partnership between two people working in a same field or sharing same experiences. A mentor is a person helping the mentee to develop solutions to career related issues. Mentors should be helpful and get the mentee to believe in her while boosting her confidence. A good mentor also challenges and questions her mentee, but in the meantime provides guidance and encouragement. The most important meanings of mentoring are to enable others become more self-aware, to make them take responsible for their life and to direct their life in the direction they decide.

3.5 Best Practices and Worst Case Scenarios

Best practices can be defined as "practices that consistently show results superior to those achieved with other means". (European Commission report on best practices p.17) Best practice examples can be used as a support and example during the train-

ing session. Good examples can be found from the document Europe can do better, Best practices for reducing administrative burdens.

The web-page to European Commission best practices
http://ec.europa.eu/dgs/secretariat_general/admin_burden/best_practice_report/best_practice_report_en.htm

Worst Case Scenarios can be defined as "worst possible environment or outcome out of the several possibilities in planning or simulation" (BusinessDictionary.com). During the training session worst cases can be helpful to the participants in order to help their planning of the future expenditure cuts and contingency in their businesses.

Link behind the definition: http://www.businessdictionary.com/definition/worst-case-scenario.html

4. Special needs SMEs

Small and medium-sized enterprises have special needs which must be satisfied in order to provide high-quality services and to be able to hold further training seminars successfully. These include especially:

- Enterprises and their customers must be regarded and treated as good customers and esteemed partners.
- Closeness to people, sincere empathy and constant communication are of vital importance.
- The information exchange can be performed in writing and electronically; however personal communication is especially important.
- The cooperation must be arranged in a process-oriented and permanent manner and stand out due to its highest reliability. It is necessary to build and to earn trust.
- Lecturers, trainers and consultants must always know what SMEs think and need. It is ideal to have a constant contact person for an enterprise who also possesses specific knowledge related to corresponding branches and if necessary involves further experts.
- As a rule SMEs have small capacities for information processing and problem solution. It is difficult for them to filter, to evaluate the relevant things from the constantly growing information flow, to adjust them to the specific requirements of their enterprise and to implement them.
- Professional journals are appreciated, also open newsletters with very short articles and references where further information can be obtained if necessary.
- Especially intensively the information is taken from daily and district newspapers. A very short announcement in the daily newspaper brings more resonance than a long article in a professional journal or a letter.
- Letters with long text passages are often not read. At the same time seminars must be announced through mailing actions which arouse interest when they are compiled in short form, communicate information specifically and possibly contain a flyer which immediately makes it clear what benefits the seminar has for the enterprise.

- Follow-up by telephone is essential. What matters is personal contact and individual communication. It should take place at off-peak hours and all the possibilities must be used, for example, meetings, discussion evenings etc.
- The transfer of information, for example, the announcement of a seminar, is not the obligation of potential participants but an obligation of the organizer.
- Whenever the opportunity arises it is important to go to the enterprise personally, to be close to the people there and to accompany their work.
- All services and promotion for SMEs must be fitting perfectly. A further training seminar must exactly correspond to the requirements and the problems of the participants to the maximum possible extent. The precise knowledge or the preliminary determination of demands is decisive factors of success.
- SMEs suffer from constant lack of time. Further training and consultations must take place during the time which suits to enterprises best of all, for example, in the evening, on Friday afternoon and Saturday or during labour extensive time periods (e.g. in winter).
- SMEs require all the services and funding just in time. It is important for them not that they get information or help at some point in time but the fact that they can directly obtain it when they have the need for it.
- SMEs react extremely sensitively to bureaucracy; they need all the services and funding from a single source. It is the task of the service and further training provider to guarantee it constantly. SMEs may not be loaded with coordination works among various institutions or persons.
- In SMEs the enterprise management is constantly overcharged with plenty of management tasks which must be performed by one person alone as a rule. Unlike major enterprises SMEs cannot have internal staff departments. Promoters and further training providers must externally perform the required staff functions and thereby offer non-monetary advantages to SMEs.

Evaluation of the Train the Trainer Seminar in….on…..

We kindly ask the participants of the seminar for their opinion. Your assessment will help us to safeguard the quality of the events and to improve it continuously.

Did the seminar meet your expectations?	❑ ☺	❑ 😐	❑ ☹

Service and organisation	Very satisfied	Satisfied	Middle rate	Not satisfied	Very unsatis-fied
How do you assess ...					
... the materials of the seminar?	❑	❑	❑	❑	❑
... the organisation of the seminar?	❑	❑	❑	❑	❑
... the promotion of the seminar?	❑	❑	❑	❑	❑

Quality of the seminar	Absolute-ly yes	Yes	Middle rate	Not really	Absolute-ly not
Can you use the seminar content in your daily work?	❑	❑	❑	❑	❑
Are you satisfied with the working speed?	❑	❑	❑	❑	❑

Speaker_	Very good	Good	Middle rate	Bad	Very bad
How do you assess the lecture style and the presentation of the speaker?	❑	❑	❑	❑	❑
Hot do you assess the seminar materials/ presentation?	❑	❑	❑	❑	❑
Did the speaker answer your questions?	❑	❑	❑	❑	❑

Speaker_	Very good	Good	Middle rate	Bad	Very bad
How do you assess the lecture style and the presentation of the speaker?	❑	❑	❑	❑	❑
Hot do you assess the seminar materials/ presentation?	❑	❑	❑	❑	❑
Did the speaker answer your questions?	❑	❑	❑	❑	❑

Speaker_	Very good	Good	Middle rate	Bad	Very bad
How do you assess the lecture style and the presentation of the speaker?	❑	❑	❑	❑	❑
Hot do you assess the seminar materials/ presentation?	❑	❑	❑	❑	❑
Did the speaker answer your questions?	❑	❑	❑	❑	❑

Comments, proposals, critique

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Thank you very much!