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Training of Trainers in Technology Transfer

Training for Trainers – Handbook





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INTRODUCTION

This handbook aimed at training of trainers (ToT) was prepared as one of the outcomes of the project NoGAP: Knowledge Transfer Community to bridge the gap between research, innovation and business creation. The overall objective of this FP7-INCO project is to reinforce the cooperation with Eastern Partnership countries to develop a “Common Knowledge and Innovation Space” on the societal challenge secure, clean and efficient energy. Additionally, NoGAP is aimed at knowledge and technology transfer from research to innovative companies and the market take up.

This training material was prepared in order to enhance mutual learning in the area of knowledge and technology transfer. It will be used mainly within the trainings delivered throughout the project in the Eastern Partnership Countries (Belarus, Georgia and Ukraine) aimed at preparing the trainers to bring the knowledge on how to create favourable environment for development of technology transfer between research and business. This transnational training manual could serve also to other European countries for delivering of ToT. It is prepared in such a manner that it can be used also afterwards in other types of trainings not only in this specific area but also in other educational activities.

Even though the primary target group consists of trainers and multipliers, this handbook can be useful also for other types of stakeholders. The handbook is intended to a wider group of users because the training has to be approached in a broader context in which the potential users of this handbook directly influence the quality of the training. It is not the purpose of this training manual to equip the trainers with basic skills but to address trainers who already have certain skills mostly with regard to the topic addressed to proceed to a higher level of training implementation.

Additionally, this manual goes hand in hand with other handbooks delivered within the project NoGAP which are aimed at training of researchers and training of SMEs/Start-up entrepreneurs. These are the main actors of technology transfer and thus, will be the end users of knowledge provided by trainers.

ToT in the area of knowledge and technology transfer using advanced training techniques will contribute to build the capacity to design, implement and monitor the effective technology transfer and to reinforce the potential partners in becoming active participants in the process of transfer of knowledge and technologies.

In the beginning, the handbook focuses on general principles of ToT containing the design, methodology and planning of the training, but also some tips for trainers to improve their skills and to facilitate the training process. The objective is that the trainers obtain some “manual” which will help them to successfully deliver the training of high quality and efficiency. Since the present times require more sophisticated and modern design of training, the multiplication methods shall not be omitted.

The second chapter of this handbook is aimed at the main features of knowledge and technology transfer that should be taken into account by trainers when they want to impart information and knowledge on successful collaboration of research and business.

In order to learn from real life situations and best practice examples, the third chapter is devoted to the case studies related to the successful systems of technology transfer across the European countries: Germany, Slovakia and Romania. The macro-regional approach is captured by the case study from the Danube Region which allows displaying even higher level of networking and partnerships.

Finally, thanks to the chapter devoted to the topic of how to write a successful project proposal, the trainers may pass on the knowledge to the potential trainees (e.g. researchers and SMEs) in the field of project development and proposal writing. The funds obtained through the successful projects may help to further develop the technology transfer process and to bridge the gap between research and industry. ToT in this regard is an important instrument which helps to build the capacities of trainers.

An old saying says:

“Give a man a fish and you feed him for a day, but teach a man to fish and you feed him for a lifetime”.

Even this saying highlights the importance of training which is becoming an inevitable part in the process of imparting knowledge, skills and experience towards practical use in real life.

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General principles of training of trainers

This handbook is intended for training of trainers (ToT) mostly in the area of knowledge and technology transfer. The main specific of technology transfer is that it comprises countless sub-fields of study from R&D, engineering, intellectual property protection, licensing, product development, marketing, etc. This is why it is important for a potential trainer to consider that the training involves wide range of topics, various target groups, methods of training, and other specifics which need attention during the delivery of the training.

In order to train the participants of technology transfer, it is necessary to have a cadre of trainers who can provide training on various topics related to, e.g. knowledge management, establishment and running of technology transfer centres, legislation in the field of technology transfer, intellectual property protection and licensing, etc.

Who is a trainer?

The success of the training depends mostly on the skills, abilities, personal qualities and experiences of the trainer. Trainer is the one who is imparting his/her experiences and knowledge on the trainees in order to improve their competencies. The most important qualities and abilities the trainer should possess are to¹:

- Plan the training precisely;
- Perfectly understand the subject of the training;
- Speak before an audience;
- Listen to the trainees and give appropriate answers;
- Engage participants actively in the training;
- Flexibly react to the needs of the target group;
- Give clear instructions;
- Create good atmosphere;

¹ EC (2004). Developing and delivering training on the Aarhus Convention for Civil Society: A Manual for Trainers. EU project: "Environmental Information, Education and Public Awareness, Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine" EuropeAid 02-0114. ISBN: 966-8026-51-9.

- Be able to solve conflicts and problems that may arise;
- Etc.

It is absolutely clear that the trainer improves with each and every training session s/he conducts. Therefore, it is good to do a self-evaluation after the training in order to determine the level of professional growth.

During the training, the trainer may play different roles. Shandler (1996) defined the following roles: trainer, provider, consultant, innovator, manager.² The first two roles are concerned mostly with maintaining the levels of performance:

Trainer It is a person who delivers the training and his role can be understood as a teacher or a lecturer who is sharing his/her knowledge with the participants of the training.

Provider This is concerned mostly with the design, maintenance and delivery of the training. It is related to designing the training, choosing the best method and evaluating the training.

The other two roles of the trainer are related to the training for change:

Consultant His/her role is concerned mostly with the analysis of problems and provision of recommendations and possible solutions which may also require training. In this regard, the consultant may work with the trainers to establish the training programmes.

Innovator This so called “catalyst” may help organisations to cope with change, manage the change and to facilitate the change through the training.

Finally, there is a fifth role which integrates the activities and behaviours of the other roles:

Manager It is concerned with planning, organising, controlling and implementing the training. The trainer is a manager in all aspects of the training since s/he is responsible for the management of the group and of the training process at all its stages.

Additionally to these roles, the trainer can be seen as an actor, organiser, leader, mentor, philosopher, etc.

² Shandler D. (1996). Reengineering the Training Function. - St. Lucie press, Florida.