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Training Course SUPPORT

Sustainable Innovation Tools

Fostering methodical Product- and Process- Development by Combining TRIZ-Tools and Sustainable Development

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Short abstract:

Strengthening innovation power in European companies as well as encouraging sustainable development are two of the main future goals of the EU (see Lisbon goals, European Council 2000).

The training course SUPPORT has been developed in the framework of the European Leonardo da Vinci programme (lt.eu page) and shows companies different ways to build up an environmentally sound innovation management system.

This approach combines "cleaner production" tools with tools of the TRIZ (Theory of Inventive Problem Solving) method which form the main part of the training course. To complete the course programme it has been complemented with tools for the assessment of ideas in respect of their environmental compatibility.

This paper deals with

- The course targets
- The target groups
- The project partnership for the elaboration of the course manuals.
- The modular structure of the course
- Course materials (project products)
- The contents of the individual course modules

Furthermore, the paper gives a short description of experiences made in the test training courses and presents current ideas for the further development of the training course and its distribution at (on an) European level.

Keywords: Training, EU-Project, Innovation, TRIZ, Sustainable Development, Creativity

The training course SUPPORT

1- Course targets

The most important goals of (the training course) SUPPORT are:

- To highlight the advantages of a methodical approach to innovations
- To convey new tools for problem analysis and idea generation.
- To anchor the ideas concerning sustainabe development
- To arouse interest for creative methods (with emphasis on TRIZ)

The training course mainly deals with the early stages of innovation management – problem analysis, idea generation and idea evaluation. Almost all tools used in the course are taken from the TRIZ (theory of inventive problem solving) method.

The topic "environmental awareness" is elaborated with the help of approved tools that have already been used in various projects coping with "cleaner production" and its commercial benefits for individual enterprises. Another central issue is the impact of a sustainable form of business on the global market.

2 - Target groups of SUPPORT

The main target groups are enterprises with (entrepreneurs, who have got) their own production plants and R&D departments. The course is designed to help these companies improve the cooperation between innovative (R&D) and environmental departments (environmental or generic management). Additionally, the course aims at students or potential Start-Ups.

3 – The project partnership

The project SUPPORT, launched at the end of the year 2002, was carried out by a group of 16 partners from 6 different countries. (It started at the end of 2002.) The following project partners were part of the development process.

- University of Leoben, Austria
- ❖ Joanneum Research, Graz, Austria
- ❖ Fa. CREAX, Ieper, Belgium
- Fraunhofer Institute IPT, Aachen, Germany
- ❖ AREA, Triest, Italy
- University of Marburg, Slovenia

4 - Course Structure

SUPPORT currently consists of seven modules:

- 1. Introduction module: Innovation / creativity & sustainable development
- 2. Aspects of Cleaner Production for products and processes
- 3. TRIZ- tools for problem analysis (innovation checklist, ideality, functional analysis, etc)
- 4. TRIZ- tools for idea generation I (innovative principles and contradictions)
- 5. TRIZ tools for idea generation II (evolution lines)

- 6. Tools for idea evaluation
- 7. project management

The modules can either be taken individually (one module a day) or combined to form a whole training course

Modules 1 and 2 explain the importance and the benefit of (that can be expected by) using a methodical approach to "sustainable development" and "creativity" within an innovative process.

Modules 3,4 and 5 cope with innovative tools used for the structured analysis of a given task and the methodical formulation of possible solutions.

Module 6 introduces a variety of evaluation criteria to facilitate the assessment of the ideas in hand, taking into account the demands of sustainable development.

Module 7 gives an overview of approved project management tools, that can be used to successfully put the chosen ideas into practice.

5 – Project products

The main products of SUPPORT are:

- Written materials and CD-Roms for the course participants
- Presentation materials for the course trainers and
- Videos (sequences) of the whole project and its individual modules

In addition to that the participants are given other dissemination materials and can consult the project's homepage

→ www.leonardo-support.com.

6 – The contents of the individual modules

The individual modules will be further documented in the final paper.

7 – Experiences made in the test training courses

The experiences made in the test training courses will be described in the final paper.

At present a test training course is entering the final phase.

8 – Ideas for the further development and distribution of the training course

Two calls for related projects at European level have already been handed in. Both shall be decided upon before the ETRIA conference.

- A) Leonardo da Vinci: Call "Transfer of Innovation"
- B) Marie Curie Confereces and Training Courses: Call "Series of Events"

Jürgen Jantschgi 04th of June 2004

Note: What will be presented: (Presentation – ETRIA conference)

- The training courses targets
- The training courses assembly
- *The project partners*
- Insight into the individual modules
- Examples for project videos
- Statements by company agents. Further projects at European level

The participation of a company agent, who took part in a training course, is planned.