

# LeadSUS - Sustainability Manager Training Programme

Newsletter – December 2014

Activity updates – Trainer's profiles – Topics at a glance - Future activities



May sustainable happiness follow you everywhere and every time ---- just like we do - Best wishes from the LeadSUS project consortium

### Activity updates



### 29 - 31 Oct. and 3 - 4 Nov. 2014: Pilot training session in Bucharest

Denkstatt Romania together with partners organized the first classroom training session in Bucharest within the LeadSUS Program. This is a practice-oriented training which provides new skills and competences for participants in the area of sustainable development. This training session is an important step of the pilot testing phase of the course before the official release. The calibration of all training materials, the pedagogy for multi-disciplinary topics and different dimensions of sustainable development have to be optimized and validated with the recommendations/feedbacks coming from all participants.

### 24 – 28 November 2014: Pilot training session in Grenoble

Within the successful experiences from the pilot training session in Bucharest, French National institute of Technology (INPG) with the partners re-organized the second classroom training session. About 15 environmental specialists from industrial companies, consulting cabinets and research institutes participated to this session. During this training, the trainers and trainees had a full exchange about how to create the leadership of the sustainable development and how to integrate and implement the sustainable activities into the daily working process.



# Trainers' profiles

# ZWOLINSKI Peggy

Professor at Grenoble INP Head of the Eco-design team, G-SCOP Lab

2007 -HDR from INPG 1999 -PhD from the INPL

1995 -Master in mechanics - ENSAM Paris 1995 -Engineer diploma in mechanics from UTBM

### Expertise and Scientific research fields Integrated design and environment

- End of life disassembly & Products remanufacturing
- Methods to integrate the environment during the design process

### New manufacturing paradigms

- Sustainable products
- Product-Service Systems
- Formalization of the life cycle needs during the design process

### Successful achievements

Supervision of 12 PhD researches and 8 master studies Pilot of 2 European collaborative projects and 3 national researches



### **ZHANG Feng**

Expert (Postdoctoral) of sustainable development

2014 -PhD from University of Grenoble
2007 -Master from Supélec Paris
2005 -License from Nanjing Normal University

### Expertise and Scientific research fields Sustainable design

- Environmental footprint and declaration
- Life Cycle Engineering
- Methods and tools of Eco-Design
- Environmental paradigms
- Product-Service Systems
- Systemic planning of environmental program

### Successful achievements

- Schneider Electric global program for green offer Green Premium
- French industrial association for product declarations of life cycle environmental profiles "PEP Eco Passport"
- National research project "ANR-Convergence"



Any product contributes more or less to environmental degradation since it requires materials and energy, must be transported and packaged, maintained and repaired and will one day become a waste. Due to the fact that 80% of environmental impacts are pre-defined during the product design phase, environmental consideration have to be performed in an approach usually called "Eco-design". Eco-design is an approach that takes into account the environmental aspects in the early stages of product or service design and aims to reduce the negative impacts of a product or service on the environment and society throughout its whole life cycle, while maintaining its guality of use and performance.

According to the definition of ISO 14044 standard, the product's life cycle for environmental domain means the consecutive and interlinked stages of a product system, including the raw material acquisition or generation from natural resources, the material and product manufacturing, the final product distribution, the utilization and the final disposal steps. The geographic transport between the different stages is also considered. The life cycle analysis, named "LCA", is a systematic approach to evaluate the product's environmental impacts. This analysis can support the designer to avoid three types of "transfer of the negative impacts": 1) the transfer of environmental impacts between different product's life cycle phases



(for example, actually, within the traditional thermal power network, the utilization of the electric vehicle transfers the environmental impacts of the use phase to the electricity manufacturing phase); 2) the transfer between different environmental impacts (the electric vehicle transfers the impacts about the GHG emission into the land pollution related to battery treatment in end of life and 3) the transfer between different product's boundaries (the electric vehicle transfers the impacts of battery system or power distribution network).

Today, within 20 years of development, the environmental characteristics have been considered as a new key "value" for a product. The eco-design does not only analyze the used components and materials, or the structure of the entire product; it creates and develops the "new" service, functionality and concepts which could bring some further positive influences on the environment. Meanwhile, the environmental concerned consideration is not an independent issue of product design. The precondition of an environmental improvement is that the eco-design should ensure the calibration of product's functions. Today, the eco-design must be a schematic solution to find out a great balance among the technical constraints, environmental concerns, and economic requirements.

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The LeadSUS Program - Leadership in Sustainability – Sustainability Manager, provides a systemic module to present the eco-design and its related methodologies: the Principe of eco-design, the life cycle analysis (LCA), the sustainable innovation and the life cycle costing (LCC). <u>Please consider our "course structure" for details</u>

## **FUTURE : Upcoming activities & events**

Învătare pe

toată durata vieții

The *final LeadSUS Training for company and institutions trainees* will be organized in Bucharest and Grenoble in 2015 (max. 20 participants targeted)

The on-line training modules and the ECQA certification will be realized in 2015

ANPODECP

**General information** 

# www.leadsus.euImage: Second State Stat

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