



Tempus158989-Tempus-1-2009-1-BE-Tempus-JPHES  
Creation of university-enterprise cooperation networks for education on  
sustainable technologies

# Course development workshop 2

## Tuzla, BA

07 - 11 June 2011.



Tempus158989-Tempus-1-2009-1-BE-Tempus-JPHES  
Creation of university-enterprise cooperation networks  
for education on sustainable technologies

Course development workshop 2

Tuzla, BA

07<sup>th</sup> till 11<sup>th</sup> June 2011.

MINUTES OF THE MEETING

The Meeting was attended by

Katholieke Hogeschool Sint-Lieven, Gent, Belgium  
Geert De Lepeeler

Trier University of Applied Sciences, Birkenfeld, Germany  
Katrin Müller-Hansen

Vienna University of Technology, Vienna, Austria  
Wilhelm Hoeflinger

University of Novi Sad, Novi Sad, Serbia  
Zoltan Zavargo  
Mile Klasnja  
Slobodan Sokolović  
Damjan Tomanek

University Ss Cyril and Methodius  
Skopje, The former Yugoslav Republic of Macedonia  
Emilija Fidancevska

University Goce Delcev, Faculty of Technology  
Štip, The former Yugoslav Republic of Macedonia  
Vineta Srebrnkoska

University of Niš, Leskovac, Serbia  
Milorad Cakić

University of East Sarajevo, Zvornik, Bosnia and Herzegovina  
Radoslav Grujić

Tuzla University, Tuzla, Bosnia and Herzegovina  
Midhat Jasic

Individual expert  
Adam Pawelczyk

Tuesday 07<sup>th</sup> June 2011.

Arrival of the participants

Accommodation

Joint dinner, hotel "Senad od Bosne"

Wednesday 08<sup>th</sup> June 2011.

AGENDA

1. The words of welcome

Amra Odobašić, dean, Faculty of Technology, Tuzla  
Midhat Jašić

## 2. Aim of the workshop

Zoltan Zavargo

Press conference and Coffee break

## 3. Reports on the present status of the course material

Concept of sustainability related to society, and especially industry

Radoslav Grujic, Midhat Jasic

Legislation

Mile Klasnja

Sustainable technologies

Emilija Fidancevska, Vineta Srebrnkoska

Renewable energy resources

Milorad Cakić

Snack and coffee

## 4. Management of the project

Geert De Lepeeler

## 5. Reports on the present status of the course material

Energy efficiency of the technology processes

Zoltan Zavargo

Zero emission concept

Zoltan Zavargo, Emilija Fidancevska

Material and energy flow management in industry

Slobodan Sokolovic

## 6. Conclusions

The first slide of all the presentations should contain the title of the project, as well as the TEMPUS logo.

All today presented PowerPoint presentation will be also inserted into the project website.

Literature review: at the end of each chapter, alphabetically, in the text just author and year in the brackets

Authors of each chapter should be written at the beginning of each chapter; in the content should be list of all authors with pages that they have written

Answered and unanswered questions: flexible number (3-10) for each

The headlines: English and local languages

Abstracts: at the end of each chapter, both languages

Content: both languages

Tables and pictures: copyrights check, origin of every table or picture

All the pictures and diagrams should be rewritten if copyrighted

Afternoon

## 7. Lecture at the Faculty of Law

Chinese philosophy, culture and life style  
Katrín Müller-Hansen

Joint dinner, Restaurant "Biblioteka"

Thursday 09<sup>th</sup> June 2011.

### AGENDA

#### 1. Industry visit

Salt factory "Solana"

Tuzla

Museum of salt

Tuzla

"Zada pharmaceutical"

Lukavac

Cement factory

Lukavac

Soda factory

Lukavac

Lunch, Hotel "Senad od Bosne"

#### 2. Report on the present status of the course material

Case studies

Case study 1

Alumina

Dragica Lazić,

Živan Živković,

Ljubica Vasiljević

Case study 2

Oil industry

Pero Dugić,

Zoran Petrović

Case study 3

Nanomaterials

Miladin Gligorić

Case study 4

Bread

Dijana Miličević,

Jasna Mastilović

Case study 5

Dairy industry

Milica Vilišić

Case study 6

Meat industry

Radoslav Grujić,  
Meho Bašić

Case study 7  
Fruit and vegetable  
Midhat Jašić,  
Ramzija Cvrk

Case study 8  
Velenje municipality  
Blatnik Stanko

Case study 9  
Tuzla municipality  
Esmir Spahić

Case study 10  
Electrochemical engineering  
Milora Tomić,  
Miomir Pavlović

Case study 11  
"Solana" Tuzla  
Mustafa Burgić,  
Abdulah Ahmetović

Case study 12  
"Zada pharmaceutical"  
Midhat Jašić,  
Emilija Spasesak-Alesovska

Case study 13  
Cement factory Lukavac  
Mustafa Burgić,  
Sead Ćatić

Case study 14  
Soda factory Lukavac  
Mustafa Burgić,  
Milovan Jotanović,  
Nihad Akeć

Case study 15  
Hazardous waste treatment  
Milica Markanović

Case study 16  
Waste water treatment by algae  
Dario Lazić

Case study 17  
Closed cycle solution for slag and ash transport in coal energy plant  
Blaženka Marković  
Amira Džinović

Dinner, Hotel "Senad od Bosne"

Friday 10<sup>th</sup> June 2011.

## AGENDA

### 1. Topics tailored to the specific needs of the industry

Food industry  
Radoslav Grujic  
Midhat Jasic  
Mile Klačnja

### 2. Topics tailored to the specific needs of the industry

Pharmaceutical and cosmetic industry  
Milorad Cakić

Coffee break

### 3. Topics tailored to the specific needs of the industry

Chemical engineering  
Radoslav Grujić  
Midhat Jašić

### 4. Topics tailored to the specific needs of the industry

Materials engineering  
Emilija Fidancevska  
Vineta Srebrnkoska

### 5. Conclusions

Generally, all titles and subtitles should remain the same.

The contents under subtitles should be reduced if necessary. The overlapping should be avoided or minimized if possible.

The text about Industrial ecology should be given completely under the Chapter 1: Concept of sustainability related to society.

The part from the Chapter Material engineering, Treatment of textile waste, should be moved to the Chapter Chemical engineering.

Nanomaterials from the Chapter Chemical engineering should be moved to the chapter Material engineering.

Break for lunch

### 6. Preparing the final conclusions

Zoltan Zavargo  
Damjan Tomanek

Free afternoon

Other participants

Saturday 11<sup>th</sup> June 2011.

## AGENDA

### 1. Final conclusions

All follow-up of agreements, concluded during workshop in Ohrid, were conducted.

The main obstacles were overlapping of some issues, definitions and phrases. The decision was to overcome unnecessary repeating and overlapping of those issues, definitions and phrases. The phrases that appear for the first time will be explained in detail. If they appear later on, there will be no, or just short, explanations.

On the basis of the presentations and discussions, the final course structure, content and extent were accepted. They will be inserted on the hidden page of the project web-site. When the course material will be final, the final revision of content and extent will be done.

All the Case studies, under the Chapter 8, should be included under appropriate existing chapters.

It was decided that there should be five books.

The first book

will cover Chapters 1 to 7; it is planned to contain about 400 pages.

The second book

will cover Chapter 8A (previously 9A) - Food industry; approximately 150 pages.

The third book

will cover Chapter 8B (previously 9B) - Pharmaceutical and cosmetic industry; approximately 150 pages.

The fourth book

will cover Chapter 8C (previously 9C) - Chemical engineering; approximately 150 pages.

The fifth book

will cover Chapter 8D (Previously 9D) - Material engineering; approximately 150 pages.

### Course writing finalization

It was agreed that the deadline for the course writing finalization, indicated in the application should be followed, that is until middle of October 2011.

### Internal review

Internal review will be done by Zoltan Zavargo, with the help of local coordinator; deadline - middle of November 2011.

### Corrections after Internal review

Deadline for corrections is middle of December 2011.

### External revision

External expert will be Gyula Vatai. Deadline for external revision is 15th of January 2012.

Thank you for a nice Workshop!

Geert De Lepeeler

Zoltan Zavargo

Midhat Jasic

Damjan Tomanek