



International Conference

**DOCTORAL STUDY PROGRAM
“ENVIRONMENTAL PROTECTION”**

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Slavonski Brod, 4-5th of December 2014

Introduction

In the year 2009 started at the University of Ljubljana interdisciplinary doctoral study program "Environmental Protection".

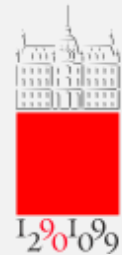
The program links together experts from various faculties and departments with the common interest of protecting the environment.

As to the content, the program has been harmonized with similar programs of other universities in particular in the EU and in the USA.



Faculties - partners

Univerza v Ljubljani
Universitas *Labacensis*



- ◆ Biotechnical Faculty
- ◆ Faculty of Economics
- ◆ Faculty of Social Sciences
- ◆ Faculty of Civil Engineering and Geodesy
- ◆ Faculty of Chemistry and Chemical Technology
- ◆ Faculty of Mathematics and Physics
- ◆ Faculty of Maritime Studies and Transport
- ◆ Faculty of Mechanical Engineering
- ◆ Faculty of Arts
- ◆ Faculty of Medicine
- ◆ Faculty of Natural Sciences and Engineering
- ◆ Faculty of Law
- ◆ Veterinary Faculty

The program

Interdisciplinary doctoral program “**Environmental protection**” is evaluated according to the European Credit Transfer System (ECTS), thus allowing students and lecturers to participate in international exchange schemes in the countries where ECTS or some other comparable system is implemented.

The doctoral program results in the degree of “**Doctor of Science**” including five different study orientations:

*Natural sciences,
Technical sciences,
Biotechnical sciences,
Medicine, and
Social sciences and humanities.*

The program is comparable with other similar programmes of foreign universities.

The program

*The interdisciplinary doctoral program “**Environmental protection**” consists of:*

*methodological course,
basic (core) courses, and
elective courses.*



Content and structure of the program (by year)

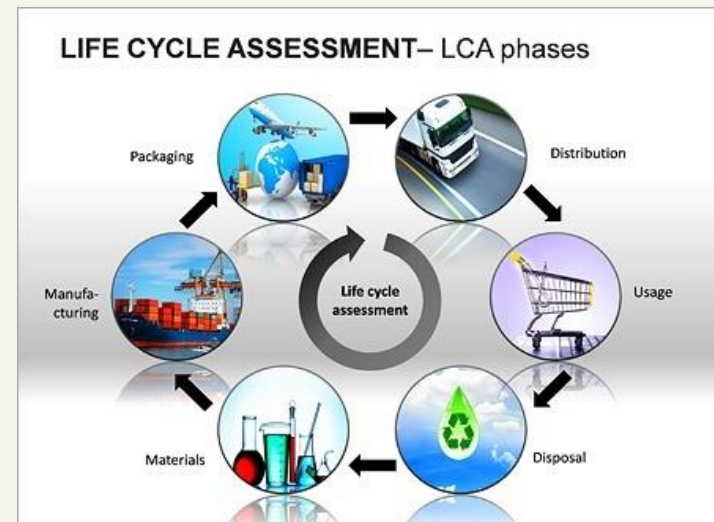
Year 1	Credits	Year 2	Credits	Year 3	Credits
Obligatory methodological Course	10	Elective Course	10	IRW	55
Core Courses	20	Doctoral seminar with presentation of the doctoral dissertation topic	5	Doctoral seminar with presentation of the doctoral dissertation prior to the public defence and the public defence	5
Elective Course	10	IRW	45		
IRW	20				

*IRW = Individual Research Work

IDP "Environmental protection" and LCA

In the frame of the program content is between the study topics presented and discussed in detail life cycle assessment (LCA) method, especially its advantages and disadvantages, and through the seminar works and individual student work application of LCA.

The students can find the base knowledge about Life Cycle Assessment in the elective course Designing Environmentally-Friendly Products and Technologies.



IDP "Environmental protection" and LCA

*Case studies and applications of LCA give them 4 elective courses:
Information Approaches in Science and Technology,
Recycling of Metal Materials,
Renewable Energy Sources, and
Designing Environmentally-Friendly Products and Technologies.*



Environmental-energetic analysis of the process



Environmental-energetic analysis of the process which is the base for Life Cycle Assessment (LCA) is the same for the bank, production organisation, ..., and steelwork.

Case Study 1: LCA in steelwork

We analysed potential application of LCA for the Slovenian steel producer ACRONI d.o.o., the biggest steel producer in Slovenia.

In years 2012 and 2014 heavy plates of two typical stainless steel grades 304 and 316, and of steel PROTAC 500 from ACRONI production program were analysed during two pilot student projects.

For the projects has been used the standard software for LCA analysis GaBi.

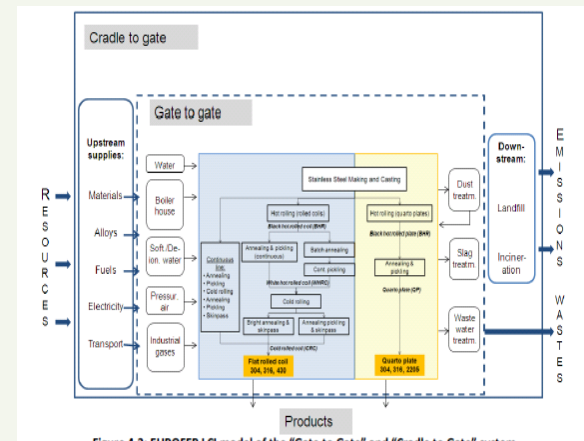


Figure 4-3: EUROFER LCI model of the "Gate to Gate" and "Cradle to Gate" system

Case Study 2: LCA in banking

In the study was used the LCA method to identify the sources of the environmental impact of a part of one of the biggest Central and Eastern European banks.



Implementation of LCA in banking sector

PhD Professor: I. Szabó, A. Gábor, D. Kárpai, D. Blahócs, B. Blahócs, A. Nagy, and B. Kocskó
University of Debrecen, Faculty of Economic Sciences, 4002 Debrecen, Hungary
University of Debrecen, Faculty of Environmental Sciences, 4002 Debrecen, Hungary
University of Debrecen, Faculty of Natural Sciences and Informatics, 4002 Debrecen, Hungary

Abstract:
Banks play a greater role in developing the economy and so each need strategies that would allow them to change the existing business model and decrease their impact on the environment. Progression among banks faces theoretical challenges and banks face a profound impact on the environment, both with their operational processes as well as with their investment portfolio. Environmental impacts bring additional risk to the banking activities and processes as well as increase the exposure of the banking assets to different categories of credit risk. By implementing sustainable strategies banks can strongly decrease their credit risk exposure. Banks can implement all of the above mentioned sustainable strategies in their investment portfolio without jeopardizing their business models and working conditions for their employees.

What is LCA - in Banking?

The questions for which the answer we were looking for:

1. How environmentally problematic is a bank?
2. In the banking portfolio more problematic than the operations?
3. How is the banking investment portfolio structured?
4. What are the reasons for investing in environmentally sensitive sectors?
5. Could the banks invest money in "good" sectors and still make money and not give up on their business?
6. Can banks present future risk of sustainable investment?
7. How can bank regulators support the investment?

Results:

As the Results of study there have been:

1. sector analysis of investment activities,
2. environmental impact of financial activities, environmental impact of banking products, and
3. total environmental impact of banking.

Conclusions:

- (1): The biggest environmental impact of a bank is not in its operations but in its portfolio.
- (2): High environmental impact in bank's portfolio is related to high return bank investments.
- (3): High environmental impact in bank's portfolio is related to low risk bank investments.
- (4): High energy subsidies operated in public structure brought higher environmental protection a large part of bank activities could have decreased risk.

CERTIFICATE OF ATTENDANCE

We confirm that

Borut Kosec
(NTY UNI LJ, Slovenia)

attended the
SETAC Europe 2014 LCA Case Study Symposium
in Novi Sad, Serbia, 24 - 26 November 2014

And presented a Poster presentation
Title:
"Implementation of LCA in banking sector"
In Session: Evaluation on providing eco-innovation and sustainability (P)

Adrian S. Blahócs, A. Gábor, D. Kárpai, D. Blahócs, B. Blahócs, A. Nagy, D. Kocskó

SETAC Europe Executive Director

Tempus project JEP_41156_2006

Training of Institutions in Modern Environmental Approaches and Technologies

mea.uns.ac.rs/index.php?option=com_frontpage&Itemid=37

Google

Training of Institutions in Modern Environmental Approaches and Technologies- TIMEA

September 1st 2007 – January 31st 2012

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Final Conference Announcement

We invite you to participate in the workshop and coordination meeting which will be organized in the framework of the TEMPUS Project No. IB_JEP-41156-2006 "TIMEA - Training of Institutions in Modern Environmental Approaches and Technologies" in **Novi Sad on 18 January 2010**.

The aim of the workshop is to disseminate the project results to institutions in Serbia, to present the Platform for Continuing Education established at University of Novi Sad as well as the continuing education courses offered by this Platform, and to exchange experience concerning the needs for continuing education in Serbia.

The aim of the coordination meeting is to evaluate the project results, to discuss the project activities, project budget, and preparation of the final project report.

Last Updated (Monday, 28 December 2009)

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http://timea.uns.ac.rs

Sunday, 17 January 2010

http://timea.uns.ac.rs, Powered by Joomla! and designed by SiteGround web hosting

CASE LCA Network

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CASE LCA



NET WORK



CASE-LCA

CASE-LCA represents a network of Scientific and Research institutes and LCA centers from Central and Southeast Europe.

CASE-LCA network is open for cooperation with individuals, companies and organizations who are willing to accept life cycle approaches.



MISSION

The mission of CASE-LCA is to establish a platform for knowledge and expertise exchange within the members countries.

This mission is supported by the following goals,

1. promotion of life cycle thinking at all levels in society within the members countries,
2. to increase awareness of and to promote the adoption of Environmental LCA among industry, government, and NGOs,
3. to promote networking among LCA practitioners and researchers.



ACTIVITIES

A main activity of the CASE-LCA Network is the annual multidisciplinary, and interactive, symposium, where professionals within the field meet to discuss, listen, learn and be inspired by each other.

The annual symposia address designers, product developers, architects, economists, lca-specialists and others with an interest in life cycle thinking.

Partners

- University of Novi Sad
- Technical University of Vienna
- University of Poznań
- University of Miškolc
- University of Ljubljana
- University of J. E. Purkyně Ústí nad Labem
- University of Josipa J. Strossmayera Osijek

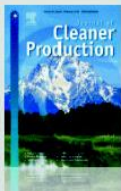
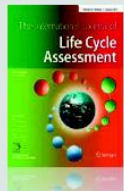
SETAC EUROPE 20th LCA CASE STUDY SYMPOSIUM

LCA IN PROMOTING ECO-INNOVATION AND SUSTAINABILITY
– EDUCATION, RESEARCH AND APPLICATION

Novi Sad, Serbia 24-26 November 2014



MORE TO KNOW ABOUT ENVIRONMENT AND LCA



LCAcenter

CONCLUSIONS

In the year 2009 started at the University of Ljubljana interdisciplinary doctoral study program "Environmental Protection".

The program links together experts from various faculties and departments with the common interest of protecting the environment.

In the frame of the program content is in the elective course Designing Environmentally-Friendly Products and Technologies presented and discussed in detail LCA method, especially its advantages and disadvantages. Through the individual student work, seminar works and case studies is confirmed its applicability.



Thank you!

