Document title:	Report on Study Visit to Vienna University of Technology (TUWien), Austria	
Study visit host:	Peter Gabko, project manager, Extension Centre of the Vienna University of Technology	
HR participants:	M. Sc. Zoran Bekić, University of Zagreb, - Prof. Dalibor Blažina, University of Zagreb, - Prof. Hrvoje Ivanković, University of Zagreb, - Sandra Kučina-Softić, University of Zagreb, - Dr. Nataša Hoić-Božić, University of Rijeka, M. Sc. Joško Mikuš, University of Dubrovnik	
Duration of visit:	November 14-17, 2006	
Report prepared at	January 2007	
Report prepared by	Sandra Kučina Softić	

I GENERAL REMARKS

Study visit to Vienna University of Technology (http://www.tuwien.ac.at) was organized jointly with study visit to University of Vienna and is one of the visits from Croatian representatives to European consortium partners realized within the framework of the EQIBELT project. Purpose of the visit was acquiring the knowledge and experience through direct contact with experts and practitioners in the field of e-learning, to learn best practices, to discuss and analyze successful and unsuccessful projects and to have on-site practical overview and experience on organization and delivery of support in field of e-learning.

The host of the study visit and the organizer of the program were **Peter Gabko, project manager at Extension Centre of Vienna University of Technology and EQIBELT project contractor.** He welcomed us at Extension Centre and presented us scheduled program of our visit. Vice-rector, professor H. Kaiser has welcomed us in his office and introduced us with TU Wien strategy in the area of e-learning.

Topics of the program were e-learning at the Vienna University of Technology, establishment and organization of university e-learning support centre, practices in developing of e-learning courses and technical support in e-learning. The program included presentations prepared and delivered by employees of Vienna University of Technology involved in the e-learning education programs in the institution. Presentations were held by:

- **Prof. H. Kaiser**, Vice-Rector : Strategies of TU Wien in the area of e-learning
- **Dr. F. Reichl,** Head of Extension Centre: E-Learning, E-Learning Center
- **I. Herbst:** Organizational aspects-delta3 project, its objectives, history, organization, team & responsibilities, service/support measures, etc.
- **A. Hruska:** Technical aspects – Moodle & experience, statistical data, technical support
- **Dr. G. Csanyi:** Digital aspects – development of e-learning courses, offered courses, content of courses, composition, coaching

- **E. Dvorak**: TUWIS++, integration of databases at TU Wien
- **Dr. T. Seidel**: E-Learning application "iChemLab"

Each of presentations was followed by discussion.

Visit was well prepared and organized by Vienna University of Technology, providing contacts with high competent experts and very useful discussions on topics relevant to project goals and objectives.

II FACTS FROM PRESENTATIONS & REFLECTIONS ON DISCUSSIONS:

Prof. H. Kaiser, Vice-Rector: *E-Learning, E-Learning Centre*

Prof. Kaiser presented TU Wien strategy in the field of e-learning and gave overview of developed activities performed in field of implementing ICT in Higher Education.

☑ Establishment of E-Learning Centre:
- history 1980-2003
- University Extension Centre
  - o Research Information, Technology Transfer, Continuing Education, International Relations, projects on distance education and continuing education
- Audio-Visual Media Centre
- problems: missing institutional strategy and sustainability
- goal: "institutionalize" E-Learning
- re-organization 2004
  - o 4 successor units of University Extension Centre; Technology Transfer, International Relations, EU Research Management, **E-Learning Centre**
  - o **new Continuing Education Centre**
- changes: development of separate centers, support of activities by adequate org. structure, service orientation instead of project orientation, sustainability, addressing initial study
☑ E-Learning Centre:
- central service unit for Vienna University of Technology
- tasks: information and networking among teachers events, support for teachers, co-operation with other universities, initiate projects
- short term activities:
  - o information (Internet Portal, events)
  - o networking
  - o E-Learning elements in initial study
- medium to long term activities:
  - o service and support
  - o additional target groups
- targets:
  - o centrally supported LMS
  - o increase of quality
  - o E-learning [to become a] "habit"

☑ E-Learning Board:
- founded parallel to E-Learning Centre
- members: representatives of different study areas, experienced in e-learning; director of E-Learning Centre; director of IT Centre
- tasks:
  - advice and support to E-Learning Centre
  - link to university management
  - deal with strategic aspects of E-Learning

☑ Project "Delta 3":
- supported by Federal Ministry for Education, Science and Culture
- 3 partners: Vienna University of Technology, University of Natural Resources & Applied Life Sciences, Academy of Fine Arts Vienna
- 3 target groups: teachers, learners in initial and continuing education, general public
- 3 areas of competence: didactics, technology, design & usability
- aims of the projects:
  - develop and implement strategies
  - tie existing initiatives together
  - co-operation in content and curricula development
  - multi-level support-network
  - create interest of general public and future students
  - gender mainstreaming, diversity and accessibility
  - create innovative climate

☑ E-Learning - Goals
- further development of access to knowledge
- broad availability of material
- improving the quality of teaching
- upgrade sharing of online-offers
- co-operation with partners

☑ Benefits for the Institution:
- improvement of quality and efficiency
- efficiency in time, space and finances
- transparency, standardization
- reach well-prepared new students
- simplification/improvement of administration
- synergies

- long-term return on investment
- profile/attractiveness of university
- attract additional learners

☑ Benefits for Teachers:
- less obstacles in the usage of E-Learning: support, consulting, training, coaching
- individualization of teaching
- innovative methods
- national and international networking

☑ Benefits for Students:
- intensified learning processes
- more transparent demands
- better comprehensibility of complex contents
- immediate feedback
- "virtual mobility": participation in international courses
- more flexibility

☑ Added Value:
- common use of resources
- simplification of organization
- reduction of administrative effort
- fostering collaborative work
- improvement of student support

☑ E-Learning Services
- consulting
- workshops
- information events
- helpdesk
- TUWEL online Learning Environment (Moodle & TUWIS ++ integration)
- national and international networking

☑ Elements of an E-Learning Strategy:
- E-Learning Centre and E-Learning Board
- E-learning award
- new curricula and lectures must have E-learning elements

☑ Future elements
- central E-Learning/E-Teaching support services
- decentralize network of assistants

Mrs. I. Herbst: TU Wien E-Learning Center– *Delta 3 project organizational aspects*

Mrs. Herbst presented organizational aspects of Delta 3 project. As vice-rector, Prof. Kaiser already mentioned in his presentation, Delta 3 project is supported by Federal Ministry for Education, Science and Culture. It is consisted of three partners: Vienna University of Technology, University of Natural Resources & Applied Life Sciences, and Academy of Fine Arts Vienna. Three universities with different cultures and different sciences approach.

☑ Goals of the project are:
- providing support to students, teacher and institution
- providing services: consulting & coaching, workshops, info events, helpdesk...
- founding a common focus – synergic of university
- public image

☑ Organization

- implementation of support units
- information about E-Learning
- InHouse marketing (toward teachers)
- quality assurance

☑ Technology
- implementing E-Learning infrastructure based on LMS Moodle
- supporting E-Learning tools

☑ Didactic
- blended learning arrangements
- E-Learning scenarios

Within project organized are monthly info events for teachers as well as introduction courses on E-Learning (20 hours) on voluntary base. Also organized are special trainings for e-tutors who will provide technical support to teachers. E-tutors are graduated students who stay there for 2-3 years. These students are selected by professors as the best students and get extra ETCS points for attending courses on e-tutoring and support and other specialized courses which are provided by delta 3 project. E-tutors work directly with students and course topics and because of that are able to provide best feedback information.

☑ Benefits
- shared resources (one Moodle installation for all teachers)
- simplification of organizational aspects of teaching
- reduction of administration overhead
- simulation of collaborative learning
- enhanced student support

Center works for a year now and about 10% of the teachers are using Moodle. Students are asking for more e-learning courses then are available at the moment.

Mr. A. Hruska: *TU Vienna E-Learning Center TUWEL Technology*

Interaction between students, teachers and institution is very important. TU Vienna E-Learning Center provides services and E-Learning Consulting Content Creation Support. LMS Moodle is connected with university information system.

☑ Moodle activities: exercise, test, forum, chat...
☑ Content internal: lecture notes, templates, examples..
☑ Content external: links to Mediendatebank, iChemlab,CMS/Websites
☑ Train the trainer program: 3 hours live introduction to teachers and the are ready to start using moodle

Experiences are that teachers are very cautious and reluctant to take early adopter role. University has provided computer classrooms and about 400 places with connection to internet. Wireless LAN is established at the whole university. Online evaluation for students on usability of technology in learning is mostly used for benchmarking. About 50% of students take the test.
Center doesn't work on core development of Moodle, but just built addins and interfaces on the LMS and forward it to the academic community.
In 2006 there were about 3000 active users per day and 166 courses.

☑ Perspectives 2007
- Faculty specific TUWEL course creation workshops
- E-learning starter tool

- Train the trainer program
- Extension of the of the E-Learning service website
- Enhancement on further development of services
- Enhancement and faculty specific development of TUWEL/moodle add-ins.

Dr. G. Csanyi: *The Potential of E-Learning*

☑ E-Learning will not exist in 10 years. It is historic event we are talking about now.

☑ E-Learning is an entry frame for very different things.

☑ Learning has remained the same for million years. Supporting technologies change every year.

☑ Organization of courses and learners:

- presentation of content

- stimulation of learner's activities

- facilitation of learner's collaboration

- communication between teachers and learners/learners and learners

- feedback and answers to learners

- assessment of teacher's achievements

☑ E-Learning –how?

- additional to face-to-face: easy, fast solutions, for beginners, moderate improvements

- blended learning: medium challenge, for slightly advanced users, rather fast solutions, big improvement in quality and efficiency

- absolute E-Learning: difficult and expensive, for sophisticated users, long term application required, big improvement in quality and efficiency

☑ E-Learning Centre Policy

- support what ever is possible

- but: concentrate on efficient solutions

- main strategy – blended learning

- main goal – fostering active learning and development of competencies

- Question is what do we want: knowledge or skills?

- "Try to do the best to stimulate active learning"

Mr. E. Dvorak: *TUWIS++, integration of databases at TU Wien*

☑ University Information System

Building of the information system dates back in the 1968. Today they run TUWIS++ (Vienna University of Technology Information system) On TUWIS++ are all curricula's, classroom halls and administrative messages to students.

Lectures which are in e-learning are on TUWEL. Course material prepared by teachers for web is evaluated by university management.

Data exchange enables student's possibility of studying on more then one university. There is a unique tuition fee per semester for students.

☑ Evaluation of the courses

Evaluation of the courses is made according to the three types of lectures. Student evaluation is performed at the end of each semester. Those students who have fulfilled evaluation forms are able to see the results. Professors will see also student's remarks. Dean of the faculty decides which lectures will be evaluated.

Dr. T. Seidel: *iChemEdu – An Internet based Information System for synthetic lab courses*

iChemEdu is E-Learning application created within "New Media in Teaching" supported by Austrian Ministry of Science. Synthetic lab courses play an important role in chemical education and within project internet based information system was created. Literature procedures often do not reflect available inventory. Expensive lab time is wasted by losing acquired knowledge. iChemEdu Concept: iChemLab, iChemExam, iChemLecture. Program assures web preparation for electronic teaching, time and location independent preparation fro students, didactically optimized programs, bi-directional interfaces to other data bases or modules. Program enables self-assessment and exams. Quality control runs through feedback.