

<b>Document title:</b>	<b>Report on Study Visit to University of Leuven (Katholieke Universiteit Leuven), Leuven, Belgium</b>	
Study visit host:	Prof. Wim Van Petegem, AVNet, K.U.Leuven	
Croatian participants:	† Zoran Bekić, University of Zagreb, project coordinator † Prof. Blaženka Divjak, University of Zagreb, project expert † Lucijana Leoni, University of Dubrovnik † Jasna Tingle, CARNet † Marijana Vidak, University of Zagreb † Dr. Marta Žuvić Butorac, University of Rijeka	
Duration of visit:	February 8-12, 2006	
Report prepared at	February 2006	
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## I GENERAL REMARKS

Study visit to University of Leuven (Katholieke Universiteit Leuven, Leuven, Belgium, <http://www.kuleuven.be/>) is one of the study visits planned within the framework of the EQIBELT project. The purpose of study visits of representatives of Croatian universities to European universities - partners in the project consortium is to advance knowledge and experience transfer through direct contacts, presentations and discussions with experts and practitioners in the field of education and e-learning, to learn best practices, to discuss and analyze successful and unsuccessful projects and initiatives within EU universities, and to have on-site practical overview and experience on organization and delivery of support in field of e-learning.

The program of the study visit was proposed and prepared by Prof. Wim Van Petegem, Director of AVNet, K.U.Leuven. The pillars of the program were presentations prepared and delivered by academic staff of K.U.Leuven in premises of the AVNet:

- ☛ **An Huts** (International Relations Office): Introduction to the K.U.Leuven
- ☛ **Piet Verhesschen** (Director Educational Policy Department): Bachelor-master structure at the K.U.Leuven: Challenges, objectives and outcomes
- ☛ **Leen Van Rentergem** (Project Manager Toledo): TOLEDO - Digital Learning Environment @ K.U.Leuven (history, current state, and plans for the future)
- ☛ **Fred Truyen** (Chairman Toledo Steering Committee): Preparing the University Information Architecture for Net-centric E-Learning and Research
- ☛ **Wim Van Petegem** (Director AVNet): Guided Independent Learning - an overall pedagogical framework
- ☛ **Jef Van den Branden**: Professional development and teacher training at K.U.Leuven
- ☛ **Wim Van Petegem** (Director AVNet): AVNet - Audiovisual and New Educational Technologies - Teacher support at K.U.Leuven

Each of the presentations was followed by extensive discussion with K.U.Leuven experts. Facilities of AVNet and day-to-day operations were presented to HR participants. Extra time was provided for reflections and discussions within Croatian delegation.

The members of Croatian delegation noticed that there are issues some common for academic community in Croatia and in Belgium such as: need for improvement of higher education and rising the quality of education, large number of students, rapid development and change of technology, need for adequate and sufficient funding, etc. Croatian delegation appreciated having the opportunity to see how K.U. Leuven deals with these issues.

In general, visit was perfectly and precisely organized by K.U.Leuven, providing contacts with high competent experts and very useful discussions of topics relevant to project goals and objectives, as well as high level hospitality and stimulating and open collaborative environment.

## II FACTS FROM PRESENTATIONS & REFLECTIONS ON DISCUSSIONS:

### **An Huts (International Relations Office): Introduction to the K.U.Leuven**

Facts & figures about K.U.Leuven:

- 14 faculties,
- 30.456 students (13% international)
- total staff 16.189 FTE (academic staff 1396 FTE + research 3891 FTE + admin.&tech. 2730 FTE + university hospital 8172 FTE)
- K.U.Leuven Association (12 polytechnics + K.U.Brussels - approx. 75.000 students)

### **Piet Verhesschen (Director Educational Policy Department): Bachelor-master structure at the K.U.Leuven: Challenges, objectives and outcomes**

Educational Policy Department (5 FTE + external experts - total of 10 FTE) is responsible to K.U.Leuven vice-president for education and is in charge of development and implementation of educational policy, fostering and evaluating Bologna process deployment, and quality assessment and control.

Educational Policy Department is separated from Central educational support office / *University Education Support Office: DUO/ICTO*.

- Specific objectives of the K.U.Leuven within Bologna process:
  - *Guided independent learning* as 'leitmotiv'
  - rationalization and optimization
  - principles of the semester system
  - flexibilisation: transitions between curricula
  - internationalization: student exchange, visiting faculty, joint curricula, use of foreign languages
  - democratization
  - Association K.U.Leuven – collaboration with other associated institutions of Higher Education
- Principles of the overall K.U.Leuven offerings:
  - system capacity as a key criterion
  - present number of programs as the reference point
  - priorities (transformation of existing programs > interdisciplinary programs > 'new' programs)
  - internationalization
  - equal opportunities for the equal students
  - transition regulations for students 'on the road'
- Bologna process timetable @ K.U.Leuven
  - 2001-2002: start of the internal procedure
  - 2002-2003: development of curricula
  - 2003-2004: final preparation

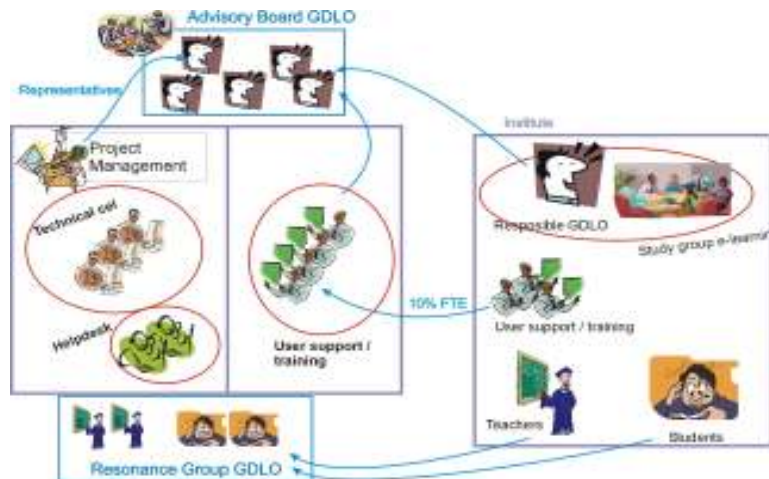
- 2004-2005: start of all bachelor programs & start of post initial master programs
- 2007-2008: start of all initial master programs
- Bologna process as a three phase model @ K.U.Leuven
  - development, evaluation and selection of general program proposals
  - elaboration of detailed programs
  - implementation
- Support team (7 FTE) @ K.U.Leuven for Bologna transformation ("BaMa" - Bachelor-Master)
- quality control/measurement must be distinguished from quality improvement (quality improvement projects in education performed by professors should not immediately/directly influence quality assessment/measurement performed through student questionnaires)
- evaluation of teaching staff separated from evaluation of educational programs
- teacher's portfolio with track on educational activities and results should be available and considered during the teacher's promotion process

### **Leen Van Rentergem (Project Manager Toledo): TOLEDO - Digital Learning Environment @ K.U.Leuven (history, current state, and plans for the future)**

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- TOLEDO - Common Digital Learning Platform (GDLO) @ K.U.Leuven
- started at 2001 by decision of university executive management with 7 FTE
- today ≈100% of students are using TOLEDO
- Global ideas:
  - Toledo is a part of the overall ICT infrastructure of the university
  - Toledo must evolve to an educational portal for the K.U.Leuven and Association
  - Toledo must be flexible (support current needs and wishes of teachers and students, e.g. wikies, blogs, ...)
  - Toledo must be extendable
  - Toledo must be open and secure
- VLE (Virtual Learning Environment) must evolve to an educational portal with all functionalities (e.g. mail) important to students and teachers
- importance of VLE integration with legacy data system, ERP system, Campus management system and Library system of the university
- TOLEDO - part of ICT infrastructure - open & modular architecture
  - products used within K.U.Leuven ICT infrastructure:
    - Oracle
    - SAP ERP
    - Campus management SAP
    - Blackboard & QuestionMark Perception
    - Ariadne Knowledge Pool
    - Shibboleth AAI
  - open standards LOM/SCORM, IMS
  - interface between components/products: Java/Perl, IMS-conformed XML
- within TOLEDO group special group for "intelligent interfaces" to other applications - 3 FTE

- ☑ organization & support of TOLEDO (Common Digital Learning Platform - GDLO):

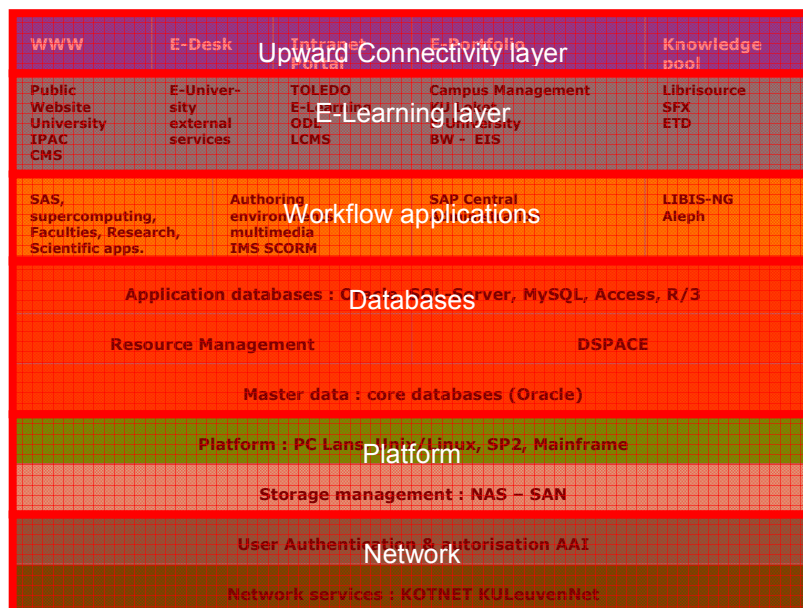


- faculties and institutes actively participate in management and support

- ☑ TOLEDO support counts on existing university support groups for teacher education and support and student's learning support groups
- ☑ GDLP should be tool independent (TOLEDO: "from Blackboard centered to network centered")

**Fred Truyen (Chairman Toledo Steering Committee): Preparing the University Information Architecture for Net-centric E-Learning and Research**

- ☑ ICTO Advisory Board @ K.U.Leuven - university committee where ICT managers from ICTS directorate (board) are paired with people from "educational sector" of the university, both management and support
- ☑ integration of VLE & ERP
- ☑ VLE as flexible education management tool
- ☑ using VLE/LCMS as modern web & communication environment instead of generic CMS solutions
- ☑ multi-layered, open and modular university ICT infrastructure:



- number of staff involved at some layers:
  - approx. 150 FTE at network & platform layer
  - approx. 50 FTE in databases layer
  - 50-55 FTE for SAP support
  - 8 FTE in TOLEDO
  - ...
- TOLEDO - K.U.Leuven specific "brand name" for service that supports academic staff in their teaching activities (initially Blackboard & QuestionMark Perception "bundled" into a service)
- starting point for any VLE implementation is 'educational model of the university', educational goals and paradigms, and just after that we should discuss and decide on organizational and technical aspects

### **Wim Van Petegem (Director AVNet): Guided Independent Learning - an overall pedagogical framework**

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- Guided Independent Learning (GIL) - the overall university's educational and pedagogical concept @ K.U.Leuven
- Important: VLE as part of LE
- Stipulates following objectives of university/academic education:
  - to be familiar with the results of scientific work situated in time and space;
  - to gain insight into the way in which research results are established;
  - to be able to interpret new information independently;
  - to be able to actively contribute to knowledge development processes;
  - to be able to form a substantiated opinion based on critical insight into underlying processes and develop well-founded social viewpoints.
- Student's responsibility: learning process. Starting point: learning is an active, constructive, cumulative, goal-oriented, self-regulated, contextualized, social process.
- GIL does not reject particular instructional approaches - still there are guidelines: education has to be functional & participation in research activities is highly valuable
- What changes GIL imply for teachers: they are expected to rethink their goals and approach; (re)develop the curriculum, and to support and to coach students
- <https://www.kuleuven.be/duo-icto/bz/brochuregil.pdf>

### **Jef Van den Branden: Professional development and teacher training at K.U.Leuven**

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- ICT in education @ K.U.Leuven:
  - 1968: University Study Bureau, with educational research unit aimed at development of models for instruction in HE
  - 1974: AV-Service for production and delivery of instructional materials
  - 1978: "DUO" (University Education Support Office)
  - 1990: new mission statement, aimed at
    - Teaching that enhances student's independent learning
    - Adequate evaluation to ensure didactic qualities of teaching staff and use of new teaching methods and technologies
- Implementation of innovation - support:
  - LUDIT: IT services, including IT helpdesk and training of "tools" (general tools, general production tools, Toledo)

- DUO-ICTO: Support for overall Educational Policy, teacher training, pedagogical support of teaching and learning materials and tools, implementation of innovation support
  - AV Net: Support for multi-media production of educational materials and for distance education (international networking)
  - Communities of practice
  - Faculty/School based support units
  - Coordination: Vice-Rector for Education
- Incentives:
- OI-grants - university's grants for education innovation projects
    - max. 60.000 € á project & year
    - 50% self-financing through staff time & existing equipment
    - should guarantee that results will be included in regular teaching after the project
    - should provide the knowledge and experience transfer to local environment
  - OOF Education Development Fund (at national Flemish) level
- Pedagogical/professional development aimed for:
- new faculty members (obligatory)
  - Teaching assistants (obligatory)
  - Members of educational innovation teams (obligatory)
  - Faculty members at large
- Every newly appointed professor or assistant is obliged to attend pedagogical training - in case this condition is not satisfied - revision of the contract
- Actual stage of professional development system:
- Series of modules (seminars and workshops), lasting at least half a day and focusing on a specific issue, e.g.
    - Coaching assignments
    - Using adobe software
    - Embedding audio-visual materials in Toledo
    - Communication tools
    - Making students active in lectures
  - Also shorter information sessions, e.g.
    - Measuring study load
    - E-portfolio
  - Specific sessions for advanced users
  - Online course AV and MM: <http://www.avnet.kuleuven.be/toledo/index2.php>
- Each university course must be presented in TOLEDO (currently not precisely defined what "presented" means, but...)
- Professional development fits in a long-term, systemic and comprehensive approach of university education, integrating pedagogical, structural, technological and organizational elements
- Professional development of teachers but also mandatory for teaching assistants, technical (and administrative) staff and students**
- 2 main competences (eCompetences) for faculty members to use e-learning platform:
- to be able to use platform in an instrumental way
  - to be able to reflect systematically upon one's own educational practice
- individual and institutional aspect of the eCompetence
- <http://www.ecompetence.info/> - The European eCompetence Initiative is a highly specialized, large size network (23 partners), which focuses on individual and organizational strategies for the integration of ICT in Higher Education



## Wim Van Petegem (Director AVNet): AVNet - Audiovisual and New Educational Technologies - Teacher support at K.U.Leuven

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- AVNet - 3 units:
  - AV services - production of interactive multimedia
  - eLINK - e-Learning in an International Network of Knowledge
  - Study Center Open University
- AVNet mission: an integrated, multidisciplinary support (mainly) for education at K.U.Leuven and in its Association with regard to media, organizational, pedagogical, and technological aspects, and particular focus on networked e-learning and distance education in an international context
- AVNet position @ K.U.Leuven:
  - academic responsibility: Coordinator Educational Affairs (Vice-president for education)
  - budget & technological responsibility: ICTS (ICT Board)
  - cooperating with: education support centers, international office, technical services, ...
- 3-layer support model:
  - stimulate teachers (students) to produce AV/MM or other e-learning projects on their own: focus on simple and cheap solutions
  - offer teachers (students) advice and facilities (for free) at AVNet to work on their own with professional tools and our infrastructure
  - AVNet make it for you (not completely for free - participation with 25% in total costs)
- AVNet support to staff and students of K.U.Leuven (partially to Association)
  - Distance education for non-campus students
  - Digitization and compression
  - Distribution
  - Networked e-learning
  - Maintenance and repairment
  - Integral Multimedia support in lecture halls
  - Editing facilities
  - Production of AV/MM programs
  - Support for Toledo
  - Rental service for AV/MM equipment
  - Videoconferencing
  - Video copy service
- AVNet infrastructure
  - video studio
  - 6 video editing suites
  - multi camera production facilities
  - videoconferencing (ISDN en IP) and interaction room
  - streaming media server
  - documentation and information centre
  - AV rental service
- AVNet resources and financing
  - 35+ team members (with contract) +
  - pool of working students, trainees, freelancers
  - central financing (operations + infrastructure)
  - partial financing by commissioners
    - 100% out-of-pocket cost +
    - 25% of personnel cost and infrastructure

- project finances
  - Flemish government
  - European Commission
- total of 125 lecture halls @ K.U.Leuven - model "0" to "4" - depending of AV capabilities and automation level