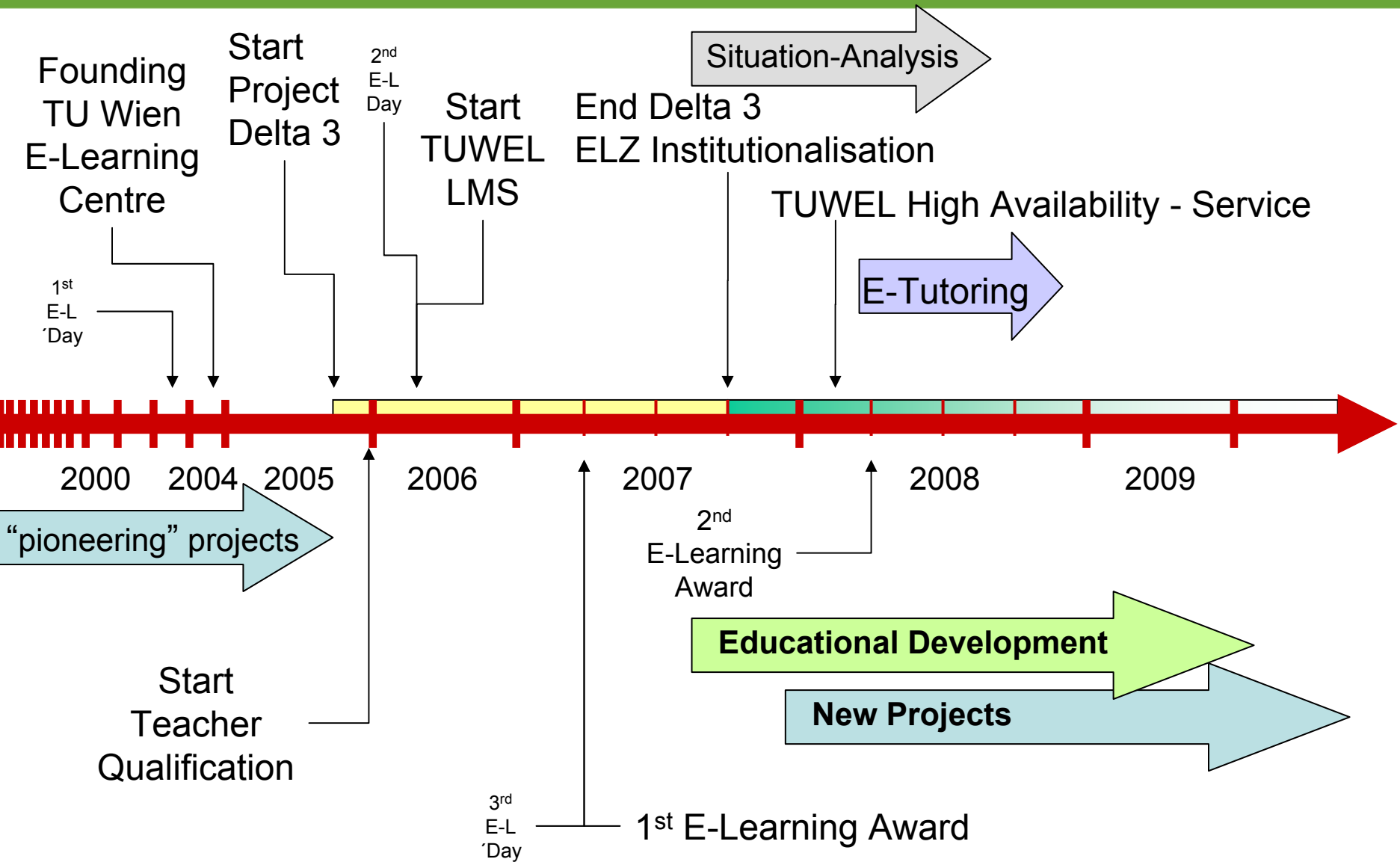
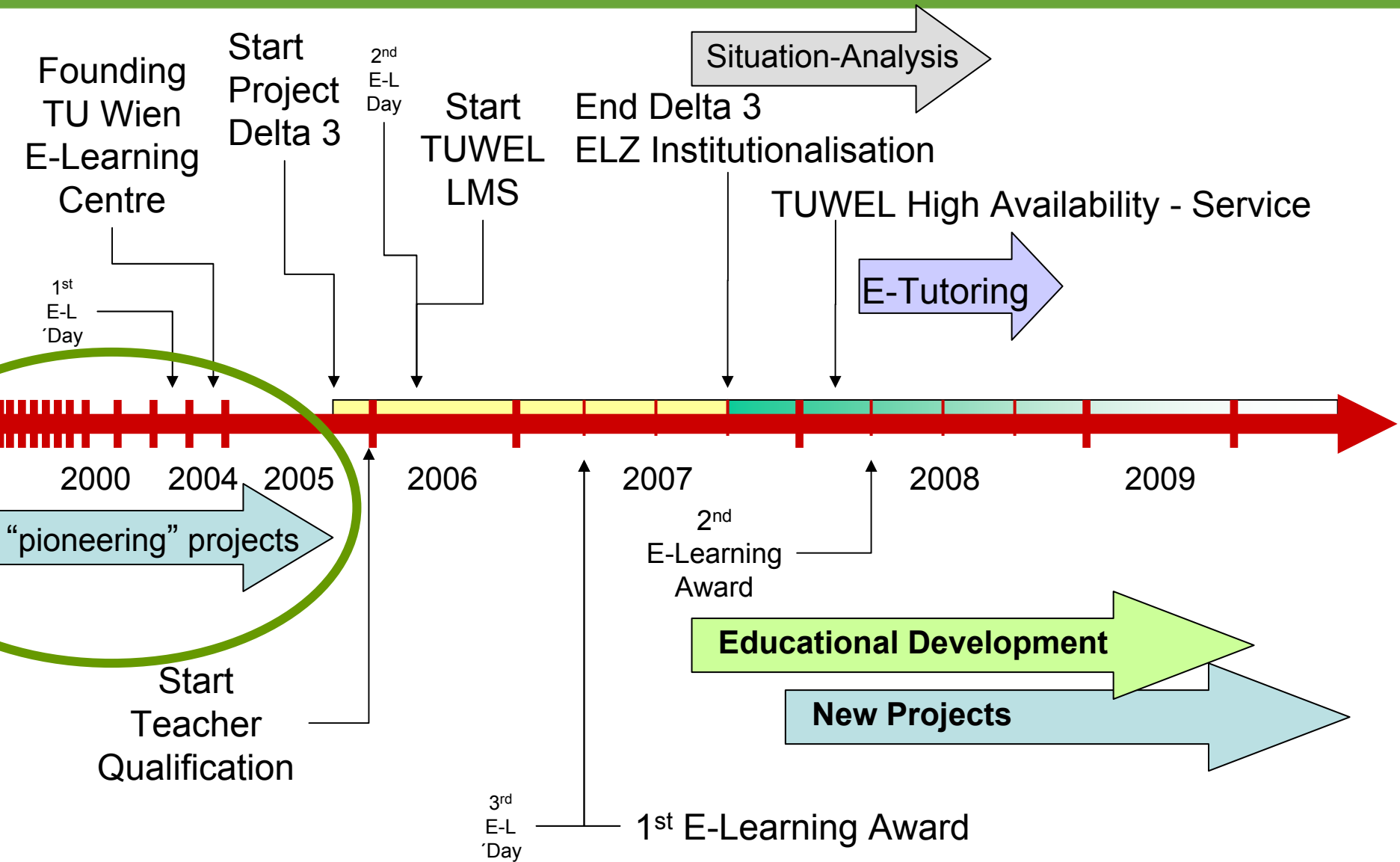


Experiences with the Implementation of E-Learning at TU Wien

Milestones, Achievements, Support

**Franz Reichl
E-Learning Centre
Vienna University of Technology**

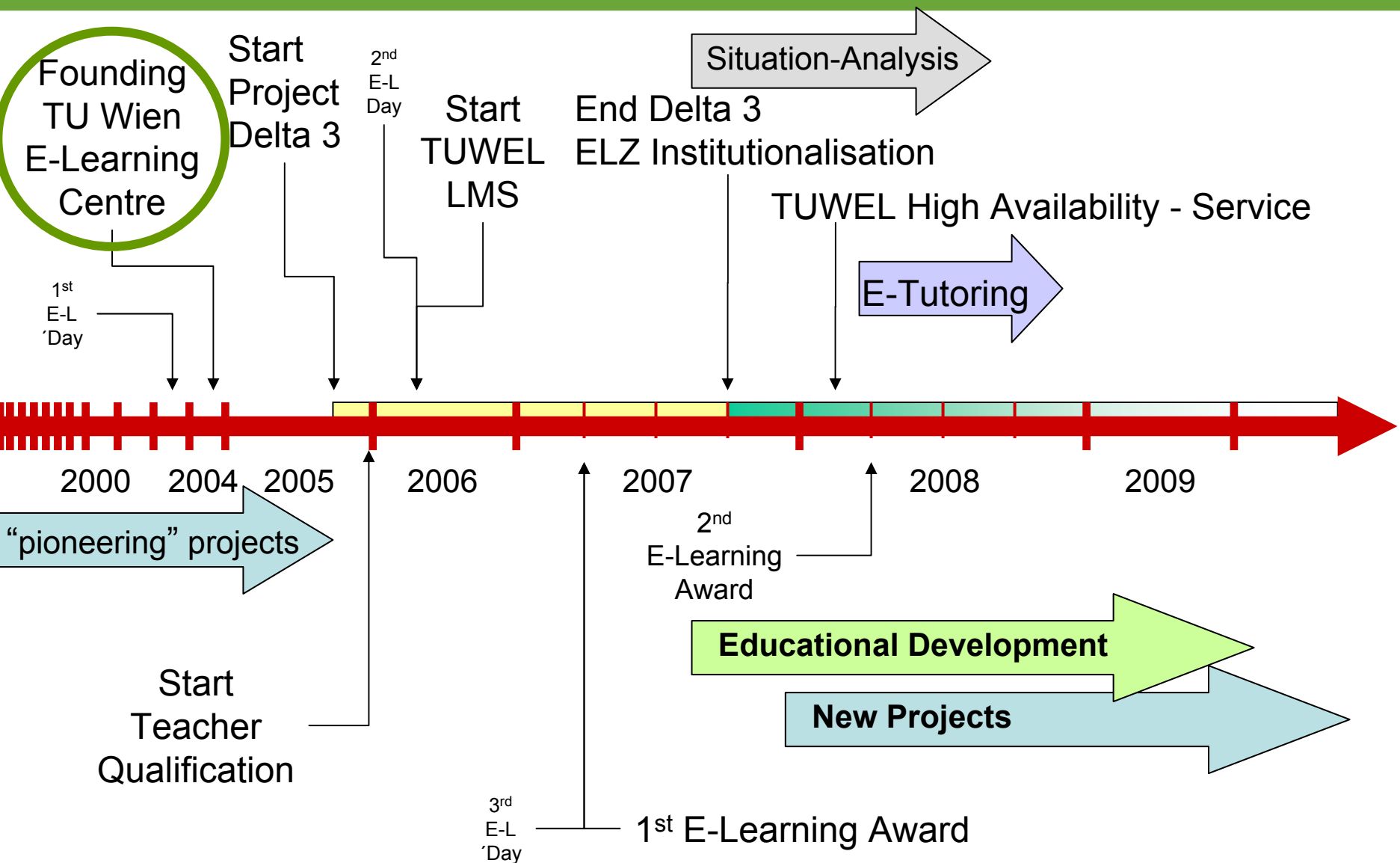




History

- University Extension Centre (Außeninstitut):
Synergy
Research Information – Technology Transfer –
Continuing Education – International Relations
- (Open &) Distance Learning und E-Learning:
new media and methods in continuing education
- E-Learning in Continuing Education:
(EU-)Projects (e.g. FACILE, ICETEL)
Courses (EcoDesign, Process Management,
Business Plans for Start-Ups,...)
- new university law
→ E-Learning Centre
→ E-Learning Board

- many projects at various departments, e.g. iChemLab, iChemEdu, virtual campus in architecture, MODULOR, virtuELA (virtual EuroLaser Academy), ESPACE, NUPEX, eBooks, FACILE, ICETEL, ...
- activities by pioneering teachers
- results often not sustainable (depending on project funding and on single teachers)



Objectives, Background

- support the university's E-Learning activities
- sustainability (from projects to services)
- few resources – development in small steps

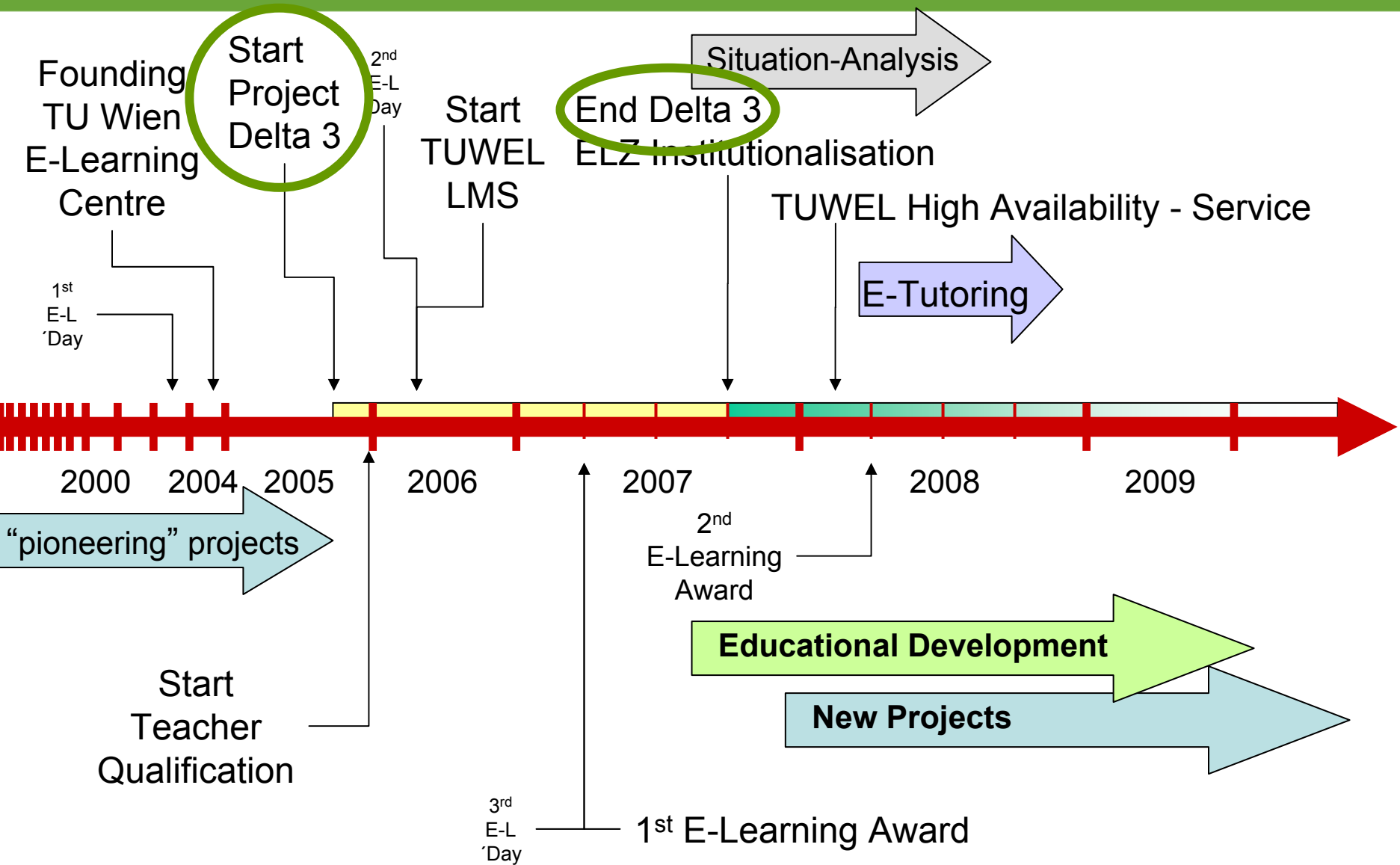
Short Term

- information: web portal, events (E-Learning Days)
- Networking among activists (TU Wien, fnma)
- E-Learning elements in initial education

Medium to Long Term

- services to support E-Learning activities
- re-use of learning material

- increased use of ICT in education:
 - centrally supported and maintained LMS Moodle
 - simplification of administration by interfaces among systems
- increased quality and efficiency in education
 - qualification of teachers and tutors
 - services for „rapid content creation“
 - support for teachers and students
 - establishing quality standards
- marketing and motivation
- commercial use of learning material
- change attitudes:
application of E-Learning as a matter of course



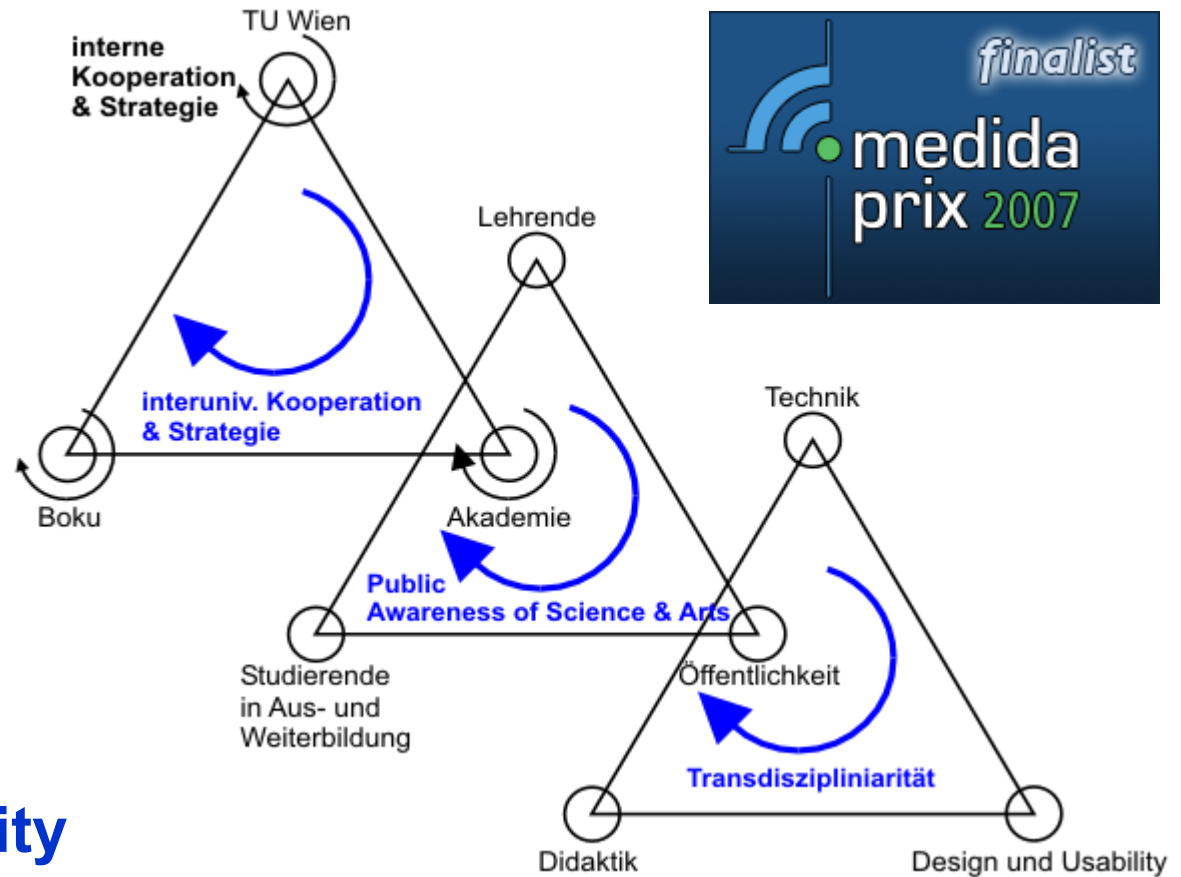
<http://www.delta3.at>

3 partners



3 target groups

3 areas of activity



- **3 partners:**
 - Vienna University of Technology
 - University of Natural Resources and Applied Life Sciences, Vienna
 - Academy of Fine Arts, Vienna
- focus their e-learning and e-teaching strategies on **3 target groups:**
 - teachers
 - learners in initial & continuing education
 - general public
- by progress and synergies in **3 areas of competence:**
 - didactics
 - technology
 - design & usability

- internal and inter-university co-operation
- trans-disciplinarity
- generate
“public awareness of science and arts”
- through relations between the corners of the
3 “e-learning triangles”

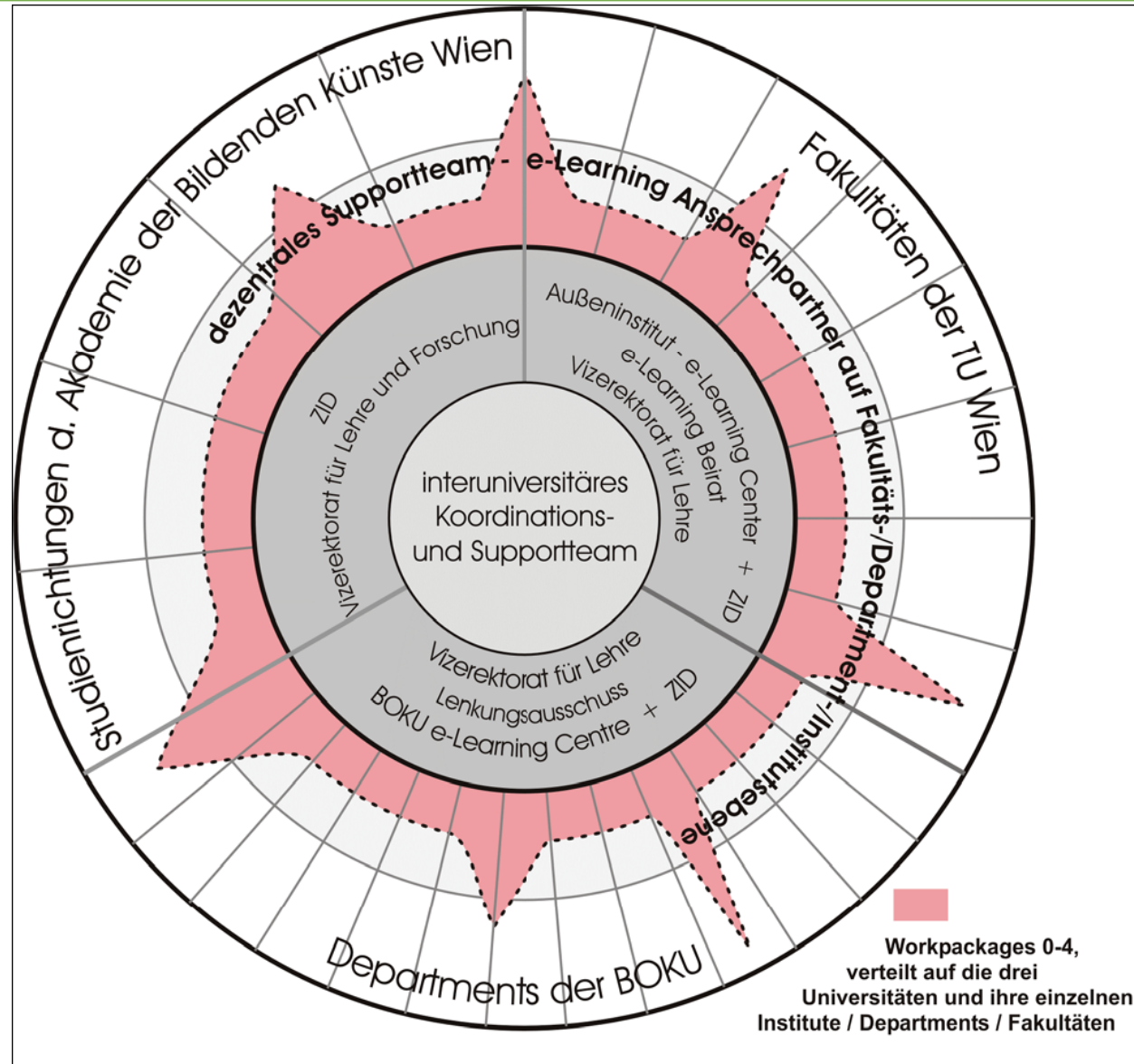
(Jointly) Develop E-Learning/E-Teaching Strategy

- initiatives by pioneers
 - sustainability of results and experiences
- from pioneering to institutionalisation
- increase proportion of online courses
 - apply innovative didactic strategies for teaching complex content
 - intensify learning processes
 - improve quality
 - include disadvantaged groups of students
- complementarity among partners
- “emerging” strategies

Gender Mainstreaming

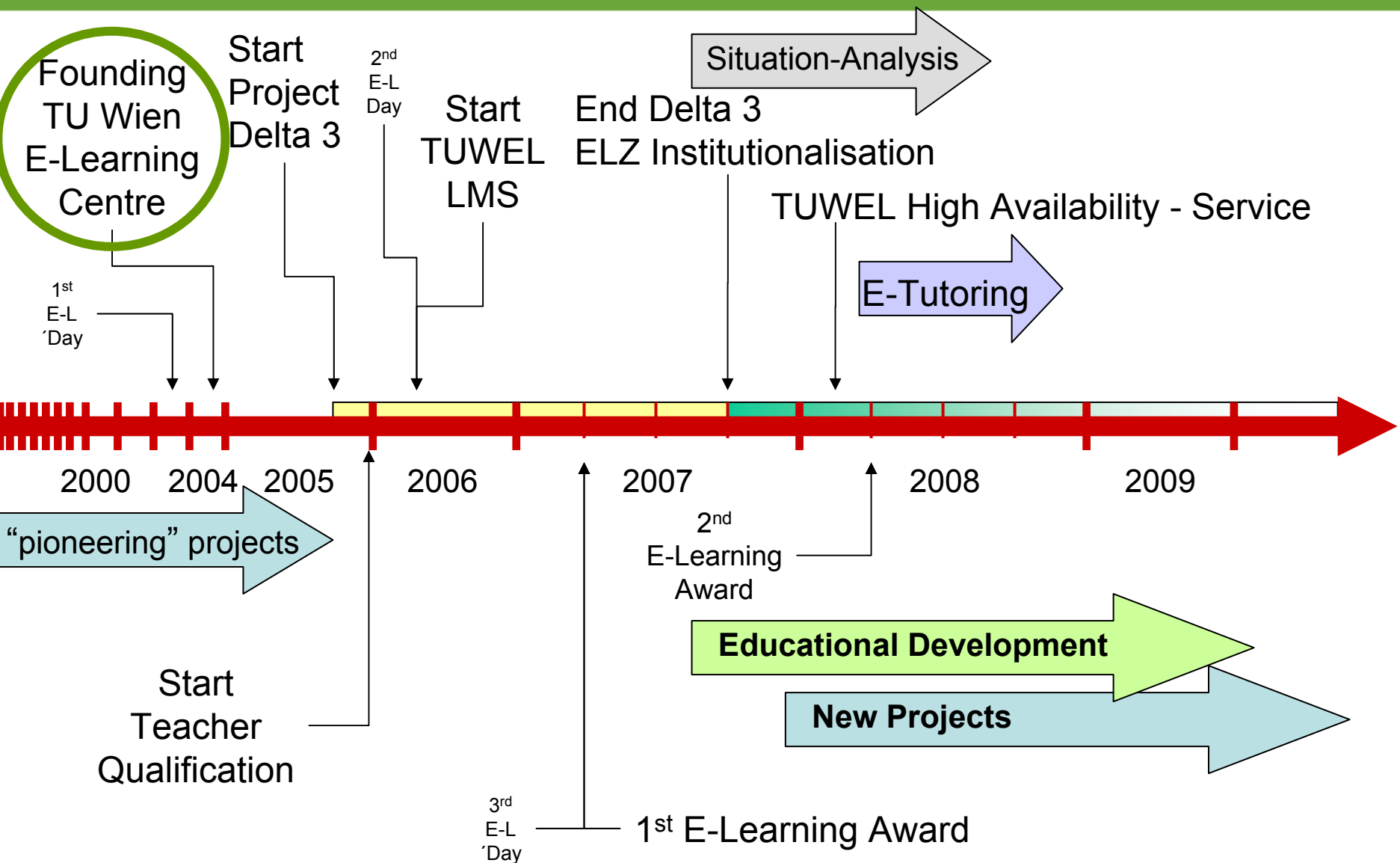
- ensure that e-learning does not discriminate against women
- lectures with gender specific contents
- workshops, seminars for teachers
- E-Gender platform
<http://egender.akbild.ac.at/>
- interest young women for a scientific or engineering field of study

Multi-Level Support Network



Synergy, Complementarity

- very heterogeneous partnership
- different viewpoints on specific problems
- inter-disciplinarity
- trans-disciplinarity
- arts and science
web portal to attract future students



Activities and Services

Students

Teachers



Institution

E-Learning Centre

Information, Networking

events

EL-Impulse, EL-Day,...

homepage

<http://elearning.tuwien.ac.at>

marketing

mobilisation

E-Learning Services

TUWEL

based on Moodle

tools

content creation,...

consulting

qualification

Educational Development

awareness
for quality

incentives

coaching

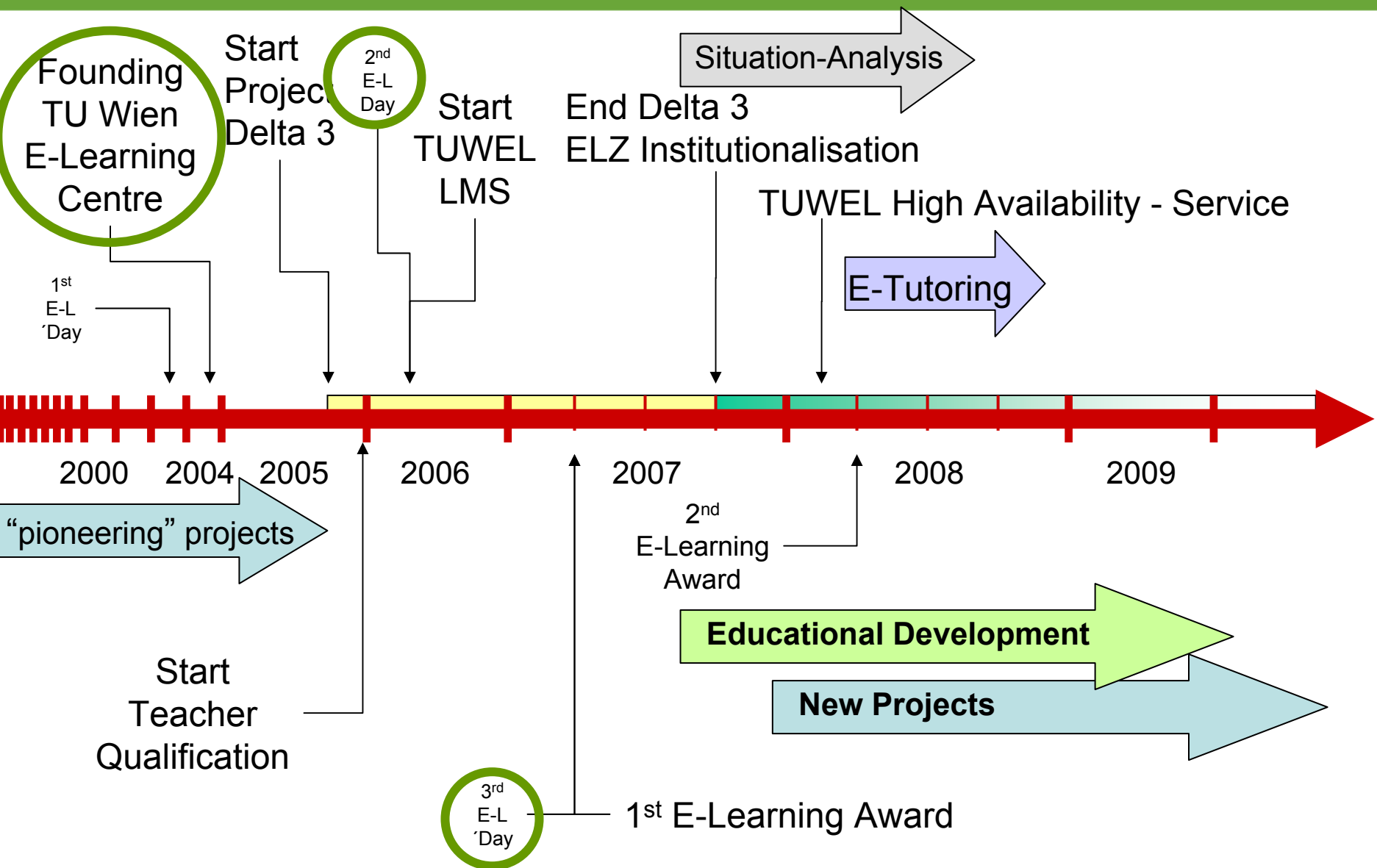
projects with
univ.teachers

Management and Organisation:

administration, internal evaluation and quality assessment

- early 2004:
5 persons
- early 2008:
11 persons,
8.8 full time equivalents
- backgrounds from different disciplines
 - computer science
 - mechanical engineering
 - civil engineering
 - surveying
 - architecture
 - psychology
 - educational science

Networking, Information, Incentives



- E-Learning Day (1 / year)
- E-Learning Impulse Events (5 / year)
- Website – Information, FAQs,...
- co-operation with other universities
- etc.

- Forums, Weblogs & Wikis in Teaching and Learning
- Bologna, E-Learning, Gender Mainstreaming: Leap in Quality or Break Shoe for Education?
- E-Learning Impulse: E-Tutors – Roles and Tasks, Costs and Benefits
- E-Learning Impulse: Blended Learning is Expensive – but it's Effective!
- E-Learning Impulse: Moodle – News and Announcements
- E-Learning Days: Competent Application of New Media
E-Learning off the Beaten Track

→ <http://elearning.tuwien.ac.at/index.php?id=archiv>

Aktuelles

Delta 3 im Finale des MEDIDA-PRIX 2007

Dem Gemeinschaftsprojekt der TU Wien, der BOKU und der Akademie der bildenden Künste „Delta 3 – der strategische Mehrwert der Differenz“ ist der Einzug ins Finale des MEDIDA-PRIX 2007 gelungen.



Die Begründung: Die Kooperation von drei sehr unterschiedlichen Hochschulen setze auf Differenz statt Gleichheit und erzeuge so deutliche Synergien und gegenseitige Inspiration. Besonders preiswürdig erscheint der Jury die klare strategische Verankerung und der gehaltvolle institutionenübergreifende Diskurs zu zentralen Anliegen im E-Learning. Das Finale und die Preisverleihung finden im Rahmen der europäischen Fachtagung der GMW vom 12. bis 14. September 2007 an der Universität Hamburg (GMW07) statt.

Aus diesem Grund muss auch der Termin für unseren nächsten E-Learning Impuls „Blended Learning ist sauteuer, aber es wirkt!“ verlegt werden. Er findet nun bereits am 6.9.2007 statt. Als Vortragenden konnten wir Prof. Dr. Peter Baumgartner gewinnen.

Termine

TUWEL 2 - Basic: Kurse verwalten, Aktivitäten erstellen, TeilnehmerInnen beurteilen [TW2]

20.09.2007, 14:00 – 17:00 Uhr
Freihaus, Erdgeschoß, roter Bereich, Raum FHSR1

> weiter

TUWEL 3 - Kooperativ Lernen: Einsatz von Aufgaben, Foren, Wikis, Chats [TW3]

26.09.2007, 14:00 – 17:00 Uhr
Seminarraum des E-Learning Zentrums, Gußhausstraße 28, 1040 Wien

> weiter

Services

E-Learning Services

Bei uns finden Sie Unterstützung in allen Fragen des Lernens und Lehrens mit Neuen Medien.

Wir informieren und trainieren Sie zu Fragen der Kursentwicklung, der Content-Produktion, der technischen Ausstattung, des Copyrights, der Organisation, etc.



> weiter

Tools

Der neue Bereich "Tools"

Die Technische Universität Wien unterstützt ihre Lehrenden mit einer Vielzahl an Neuen Technologien bei der innovativen Gestaltung ihrer Lehre. Dafür finden Sie hier ein Reihe an nützlichen Tools.

> weiter

Referenzen

E-Learning an der TU Wien

Welche Entwicklungsgeschichte hat E-Learning an der TU Wien?

In einer umfassenden Zusammenstellung stellen wir Ihnen erfolgreiche E-Learning Projekte an der TU Wien vor.

Die Projekte werden hinsichtlich Ziele und Inhalte, Medieneinsatz und Technologie beschrieben.

Diese sollen als Beispiel und Anregung für eigene E-Learning Aktivitäten dienen.

TUWEL

tuwel.tuwien.ac.at


Nachlese E-Learning Impuls vom 6.9.2007

Der Vortrag von Prof.Dr. Baumgartner im Rahmen des E-Learning-Impulses vom 6.8.2007 steht als Audiomitschnitt (Vortrag+Diskussion) und als flash-Folienpräsentation mit Audio zur Verfügung

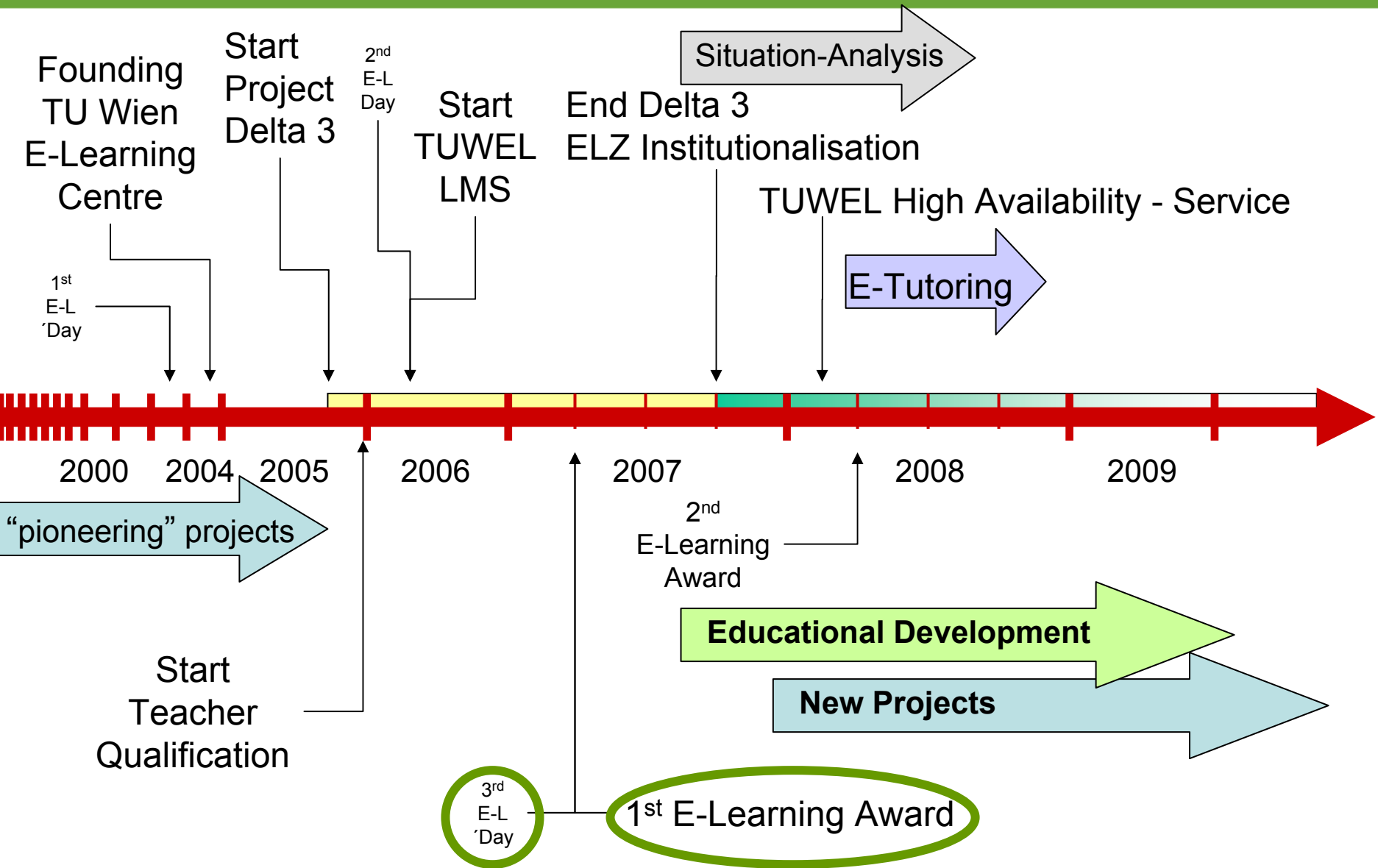
> zur download-Seite

Veranstaltungsprogramm 2007/08

Das Veranstaltungs-programm des E-Learning Zentrums für das Studienjahr 2007/08 steht als download bereit.

>  [380 kb]

Im Rahmen des **Delta3 - Projektes**  (bm:bwk) entwickeln die 3 kooperierenden Universitäten (Akademie der bildenden Künste Wien, TU Wien & Universität für Bodenkultur) nachhaltige **Strategien im Umgang mit**



E-Learning Award for excellence in (media supported) teaching



E-Learning Services

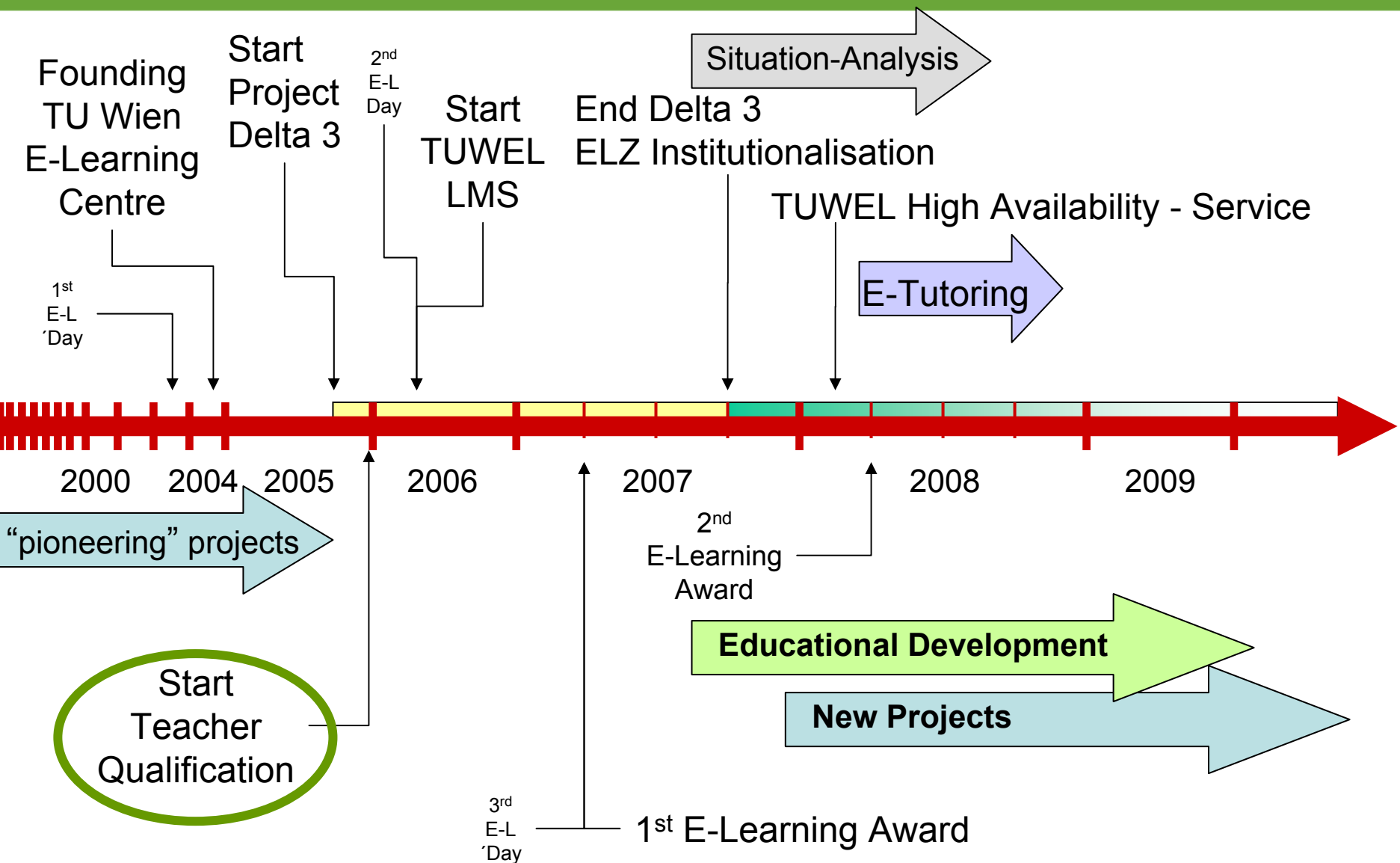
Support

reduce obstacles and barriers for teachers

- integrated
- context-sensitive
- problem- and solution-oriented
- low threshold
- multi-level support network
- adequate for any amount of time available

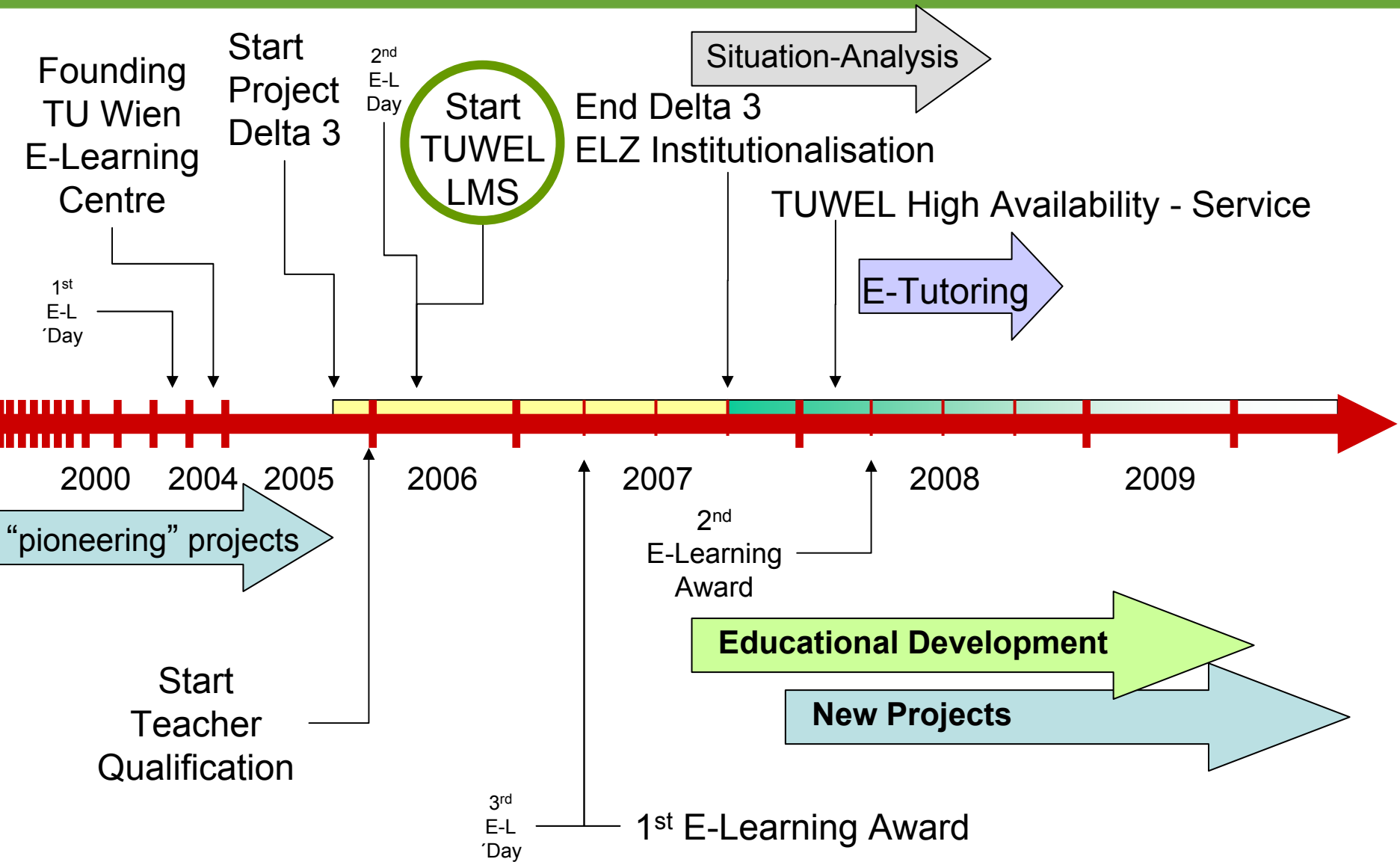
Wide Spectrum of Support Services

- online FAQs
- short explanations
- online articles
- helpdesk (telephone, e-mail)
- consultancy (application of LMS and other tools, organisation of online courses, educational design, production of learning material,...)
- qualification of teaching staff
- coaching
- support for generating projects



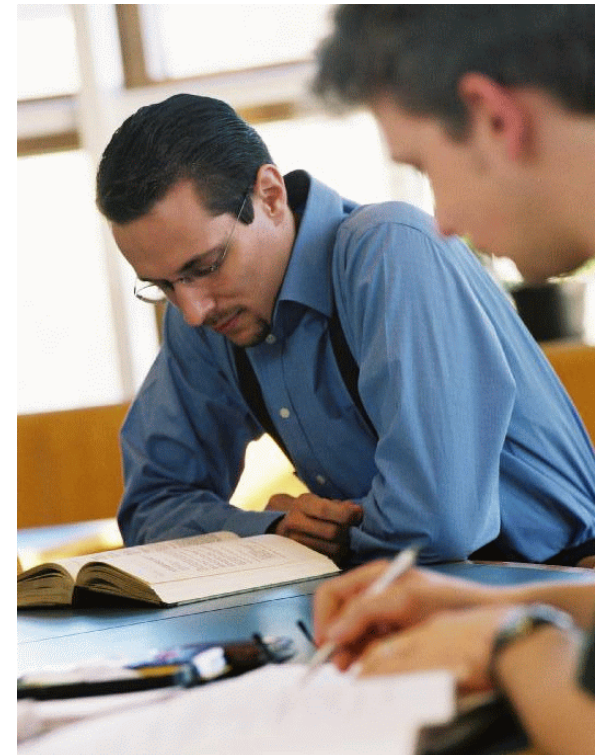
Qualification of Teaching Staff

- workshops
- modular programme
- different levels
(basic to complex)
- different areas
 - application of TUWEL
 - content creation
 - educational aspects
 - gender mainstreaming
- so far, more participants in “technical” workshops than in “educational” ones



TUWEL = TU Wien E-Learning

- consulting & coaching
- workshops
- E-Learning impulse events
- helpdesk
- TUWEL Online Learning Services
Moodle & TUWIS++ Connection



TUWEL LMS based on Moodle

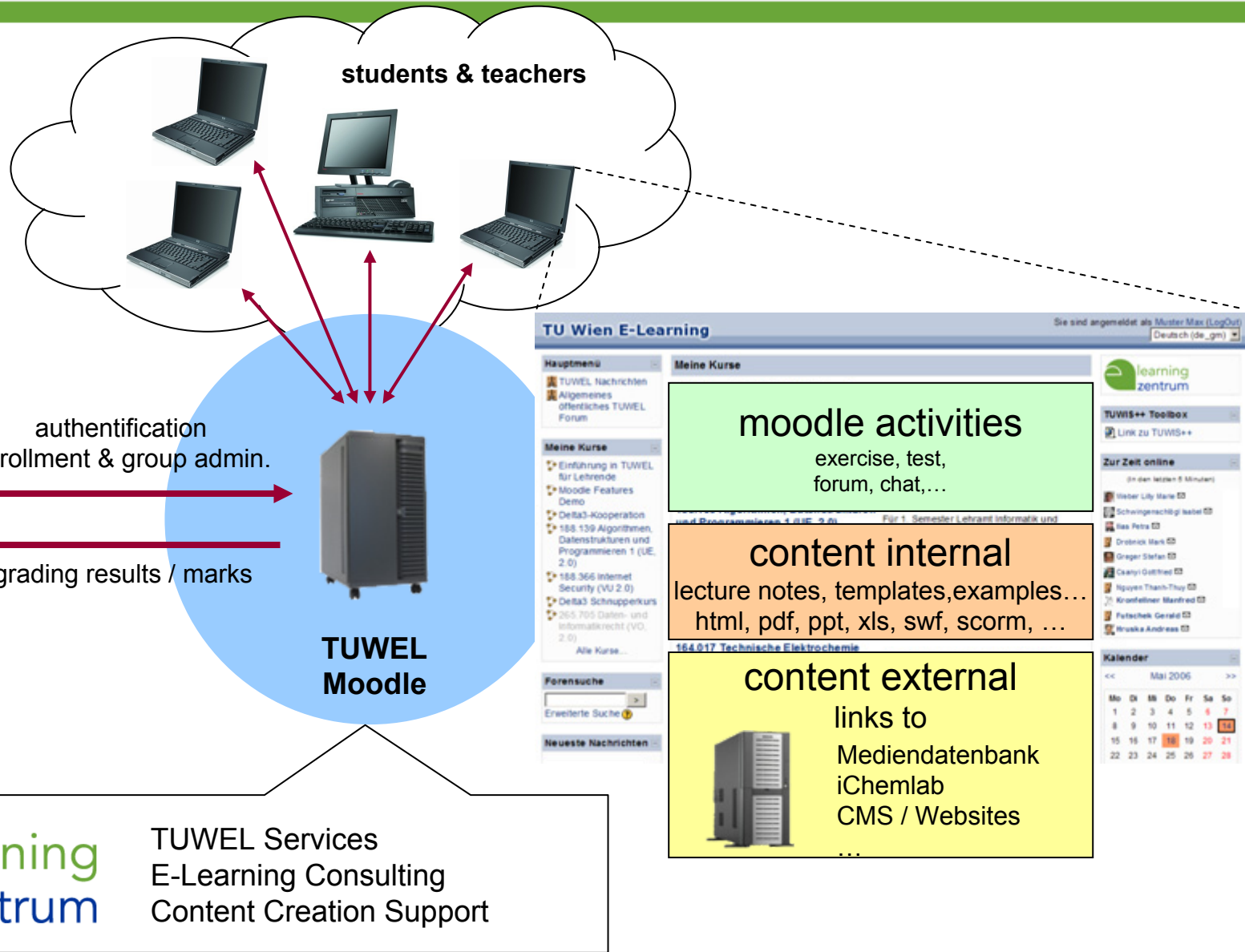
TUWEL
E-Learning Zentrum



Moodle 1.8
www.moodle.org

Linux + Apache
PHP + MySQL

High Availability
Hardware System



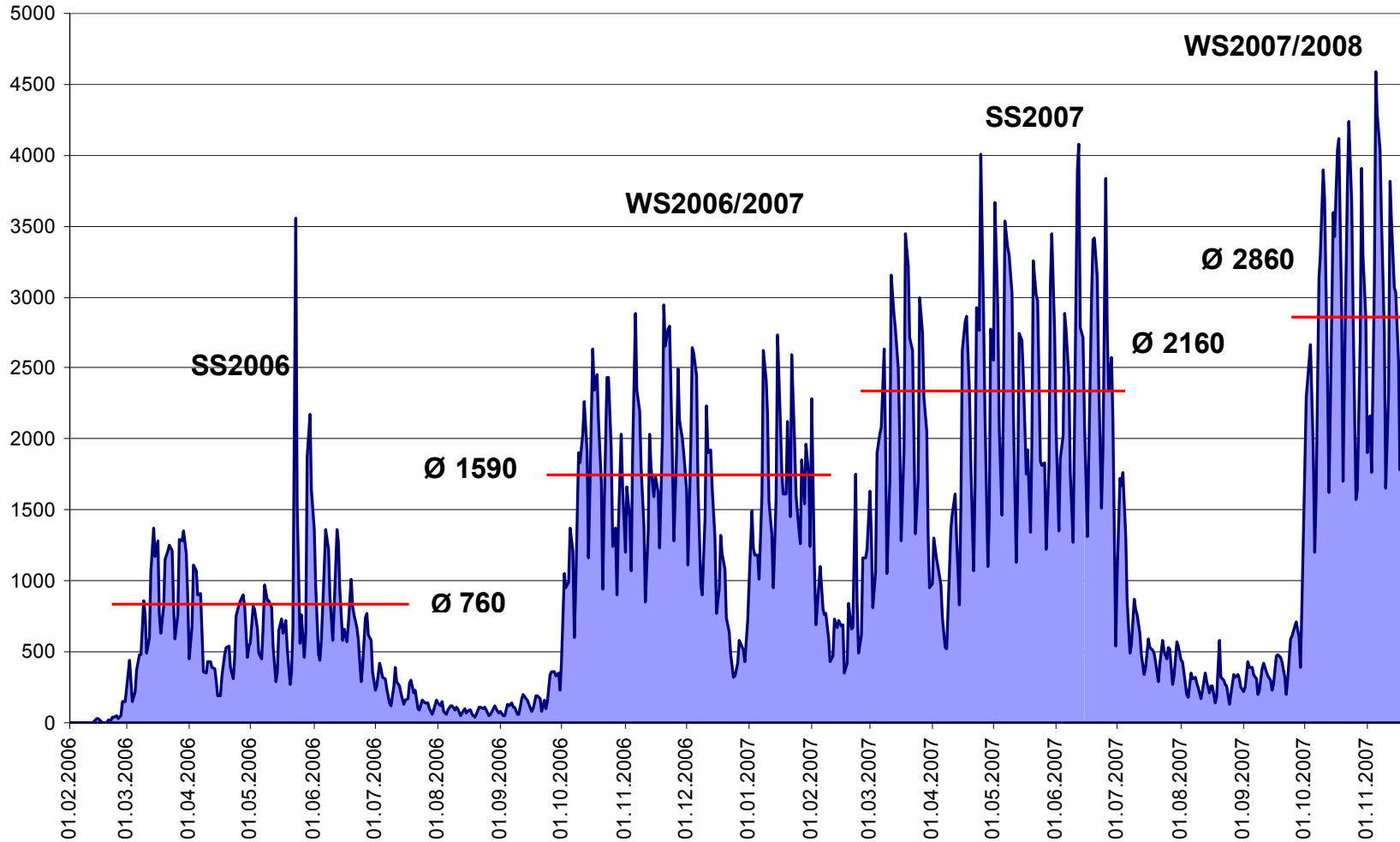
teachers, students, and courses from 2007

active teachers (incl. tutors), accumulated: 803

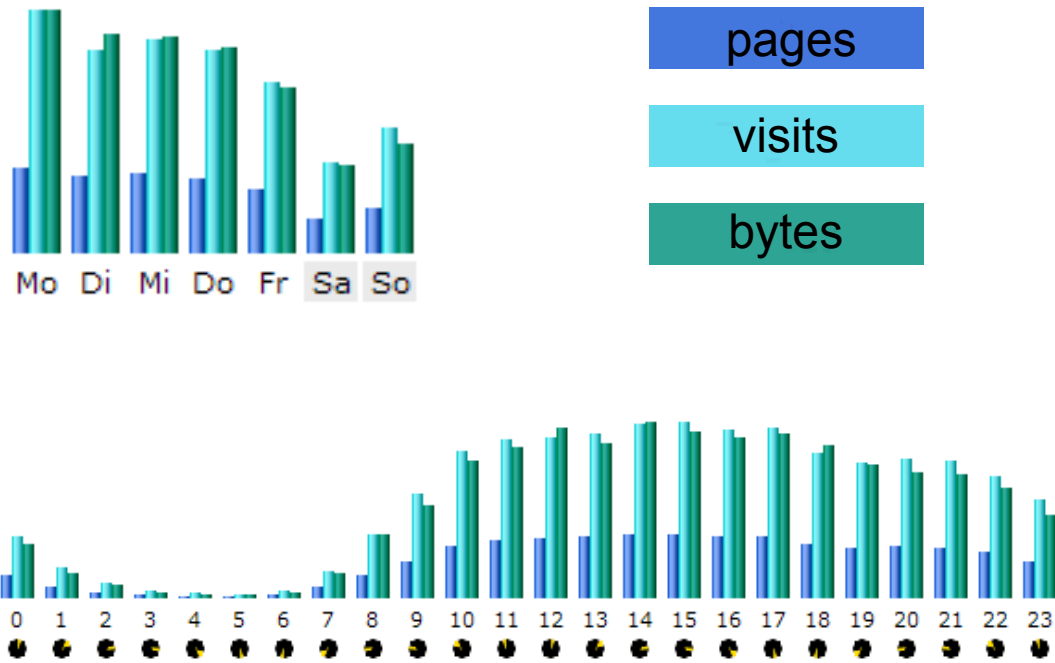
active students, accumulated: 10.930

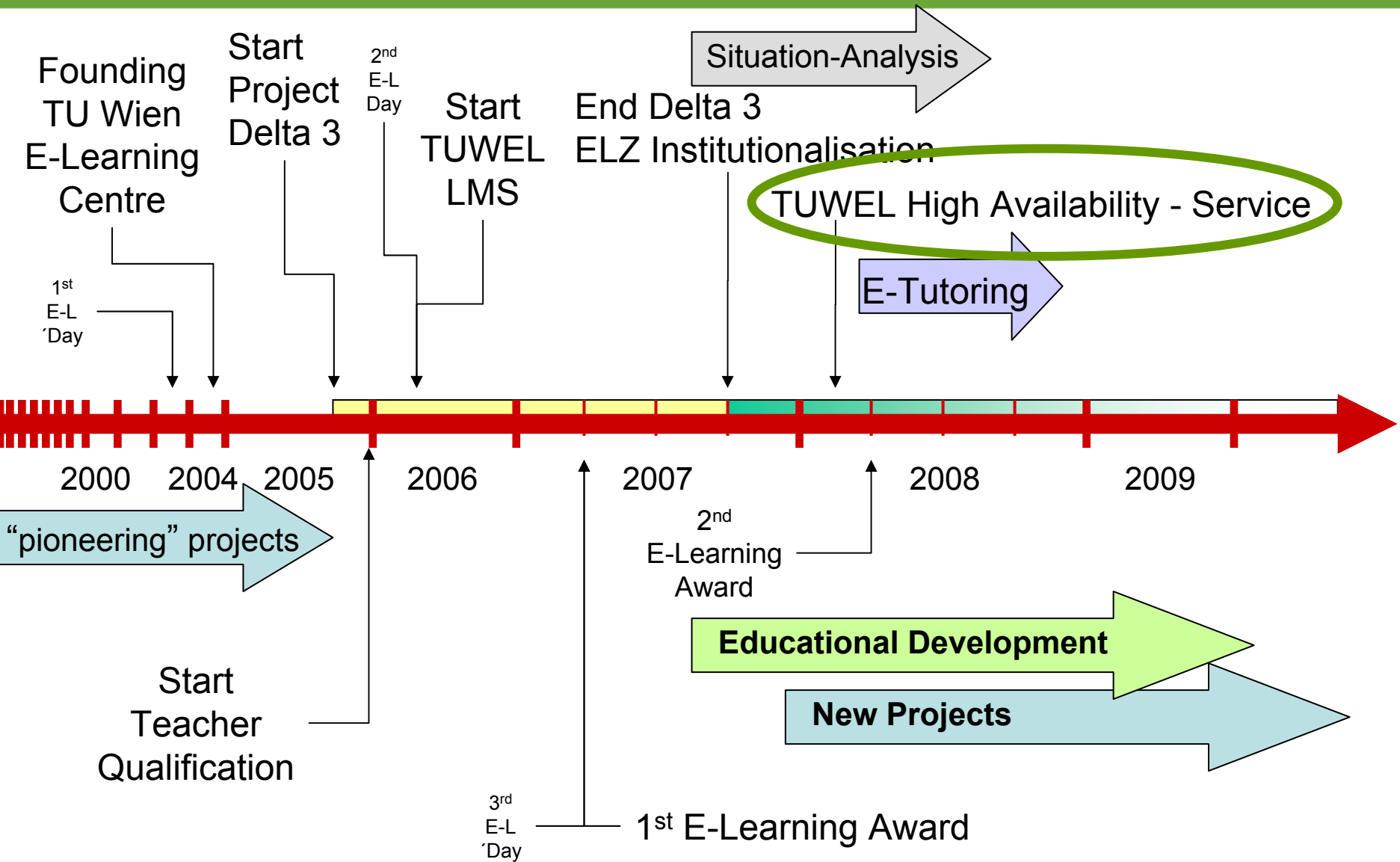
	Courses	Teachers (incl. Tutors)	Students
2005/06S	45	86	1.828
2006/07W	141	334	3.478
2006/07S	166	392	5.219
2007/08W	169	347	6.993

TUWEL users / day



- 13.500 users (students & teachers)
- 3000+ active users/day
- 70.000 visitors/month
- 1.900.000+ pages/month



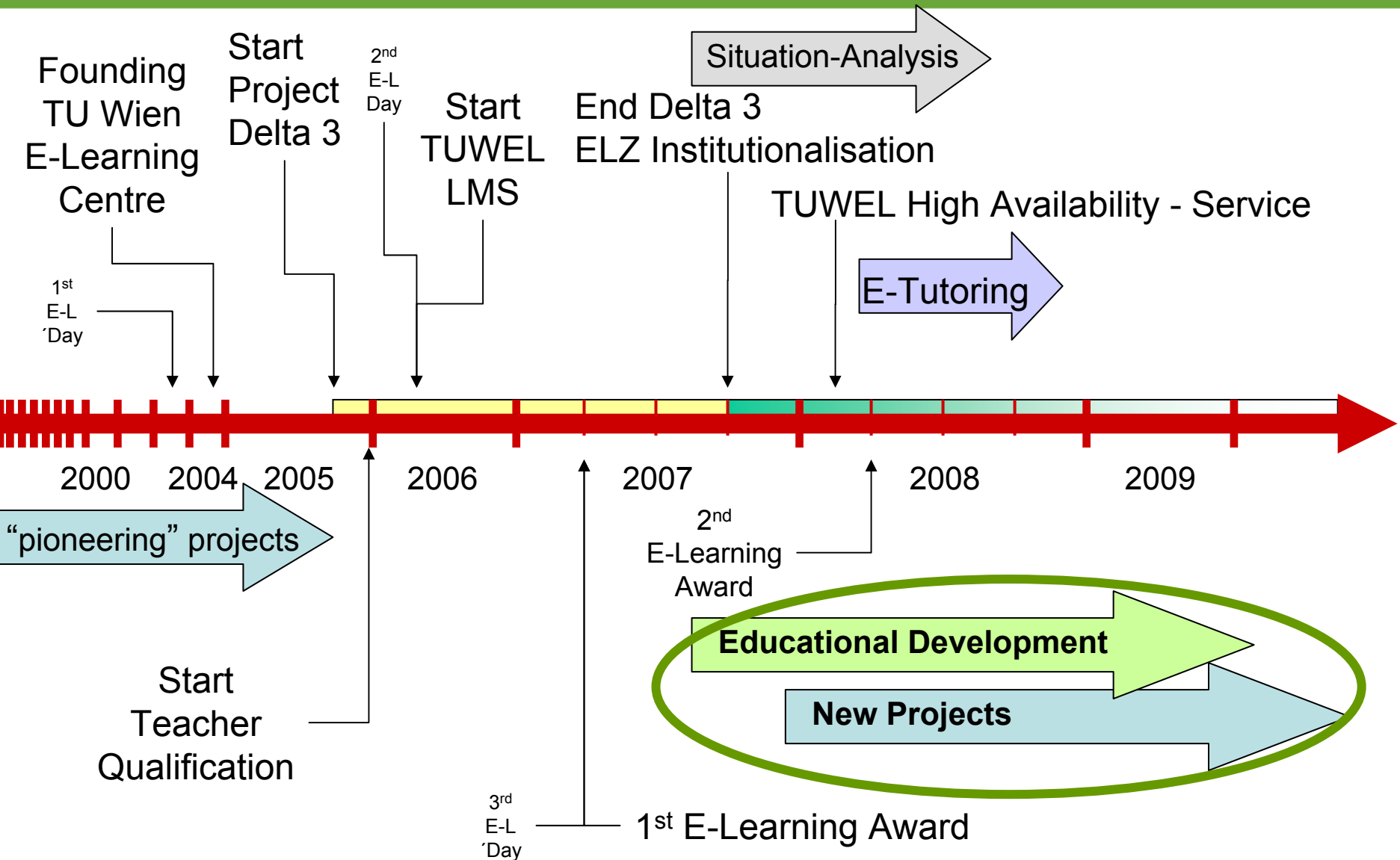


TUWEL High Availability E-Learning Service

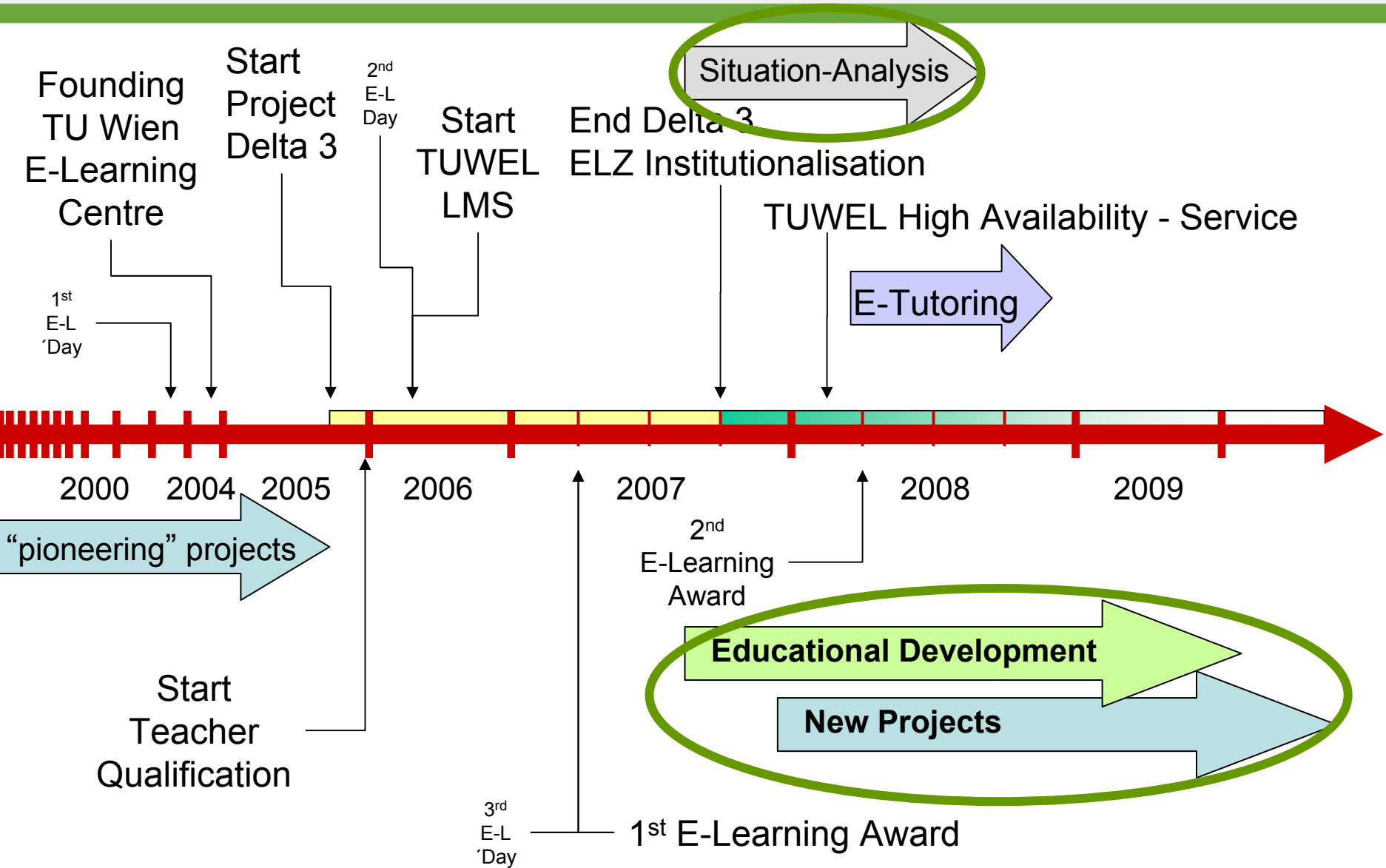
TUWEL

E-Learning Zentrum



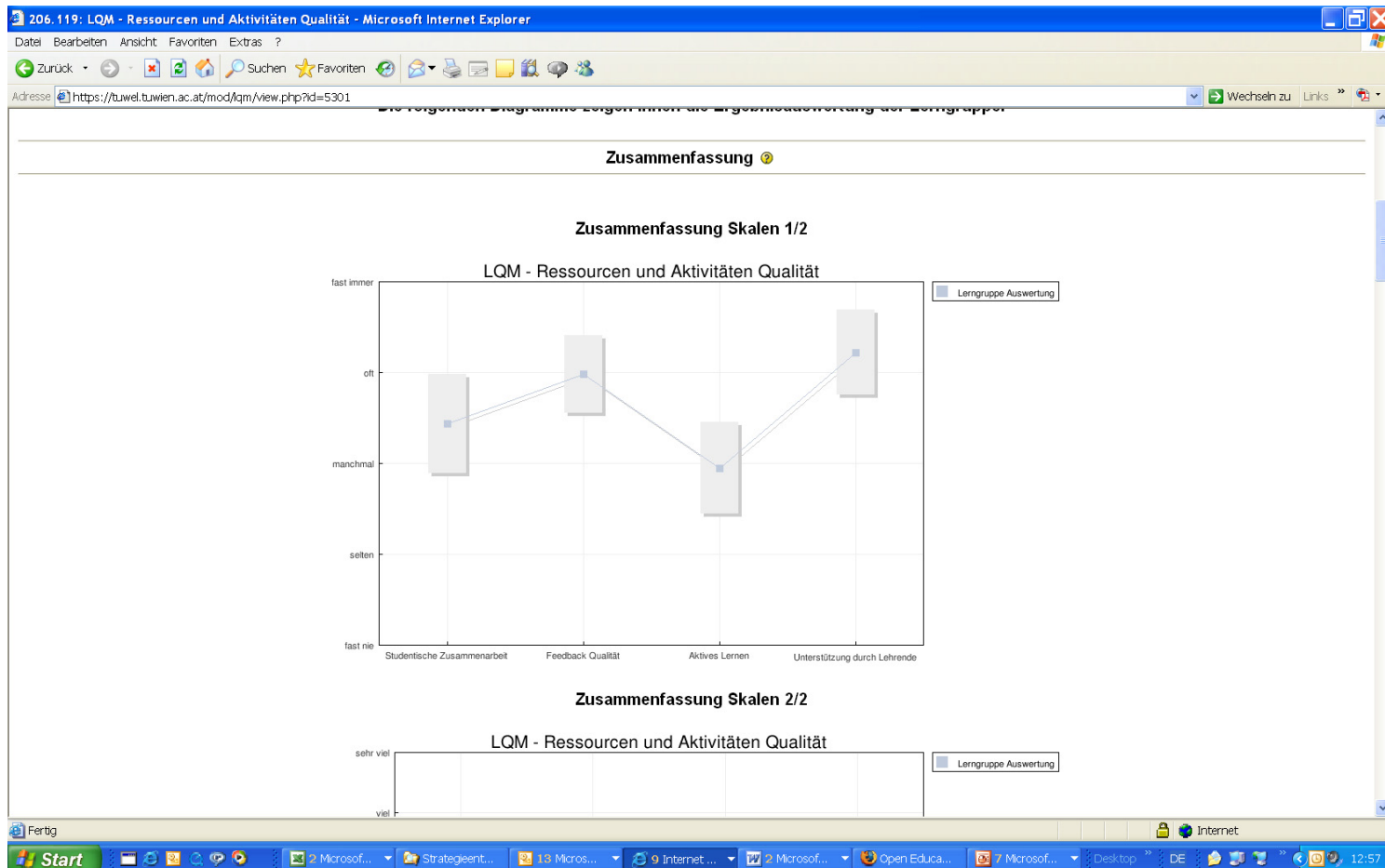


Educational Development Projects and Ideas



- internal procedures for quality assessment:
regular evaluation of lecturers by the students
specific evaluation for courses with
E-Learning elements
[proposal by the E-Learning Centre
under investigation]
- Analysis of the Status of E-Learning
+ additional consulting
- Learning Quality Management System
(module in TUWEL/Moodle)

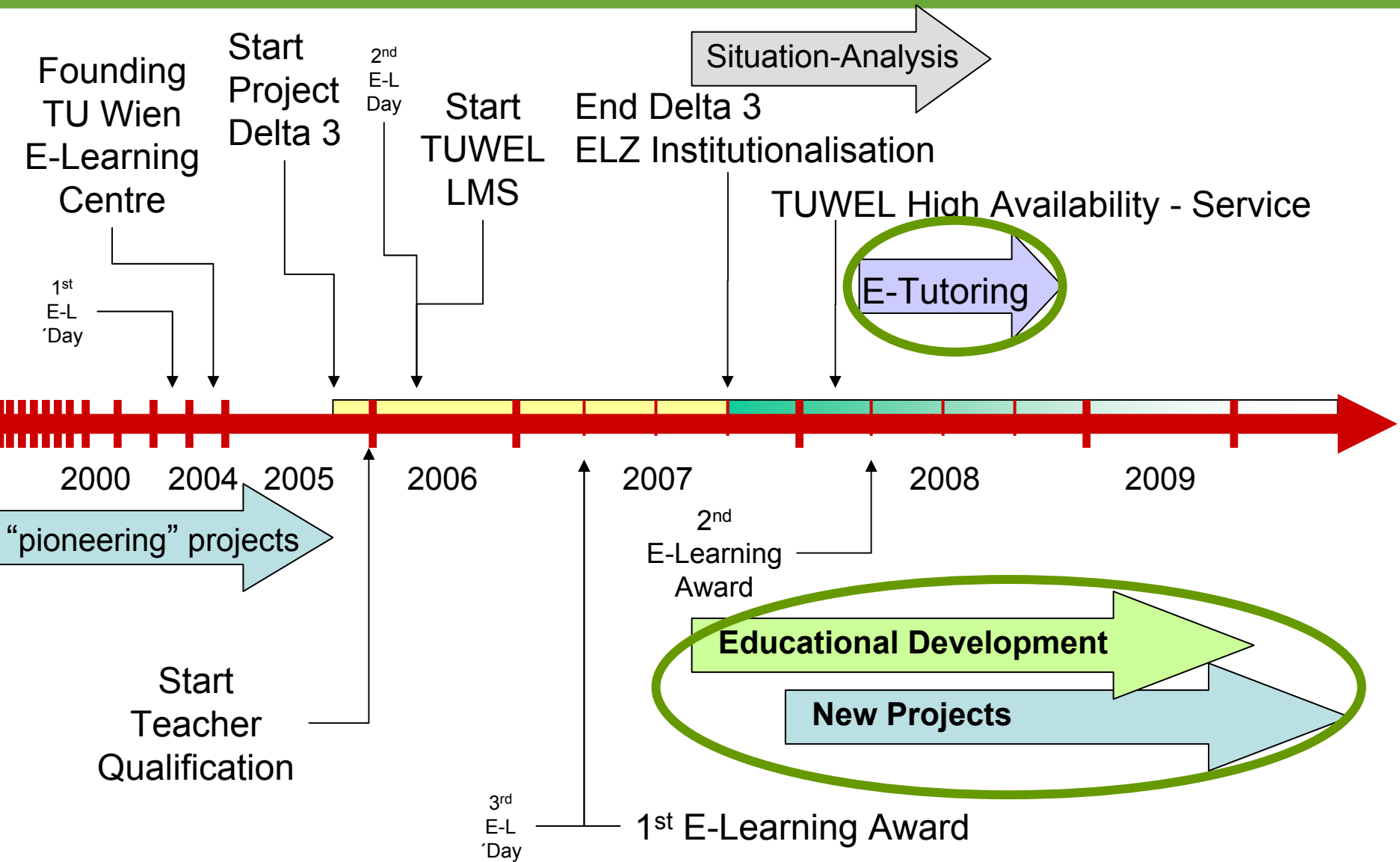
- Learning Quality Management System possibility for feedback (and reminders) early on



- provide orientation for future students
co-operation with schools (even in research)
make attractive learning material available
for school teachers
- decrease drop-out rate
support, specific introductory courses
more attractive curricula
(more than [math.] theory during first year)
- “illustrative” teaching (e.g. simulations,...)
- attract female students
- attract under-represented groups
(p. w. disabilities, rural areas, minorities, migrants,
refugees, adult/work based learners,...)

- **Content Synergies**
re-use of learning material in different courses
(intra- and inter-university)
- **Content Management**
looking for software which is easy-to-apply
define requirements for the university
content management does not stop with learning:
→ research, publication
→ asset management
- **Media Management**
internal project (in statu nascendi)

- **Legal Issues:**
who owns the learning material?
who may use the learning material?
under what terms and conditions?
- **Different Models:**
peer-to-peer, bi-lateral/multi-lateral agreements
content pools and repositories („copy-left“)
common courses, joint curricula
- **Personal Issues** (atmosphere of mutual trust,...)
- **2 experiments with the peer-to-peer model:**
started in Delta 3:
 - barrier-free design (TU Wien & AkBild),
 - Geographical Information Systems
(TU Wien & BOKU)



- **Course „Practice of E-Tutoring“**
3 days basic instruction for E-Tutors
- **Coaching for E-Tutors**
based on course „Practice of E-Tutoring“:
coaching and consulting during
occupation of E-Tutors
exchange of experiences, supervision
- **development of additional modules for
qualification of tutors and teachers**

- **EDEN Annual Conference 2007**
paper by Csanyi, Pohl, Reichl
- **informal tools for efficient learning**
library
www.informatik-forum.at
teamwork with Google Docs
team-building with Skype
- **semi-formal scenarios**
tandem (language) learning
tutorial programmes

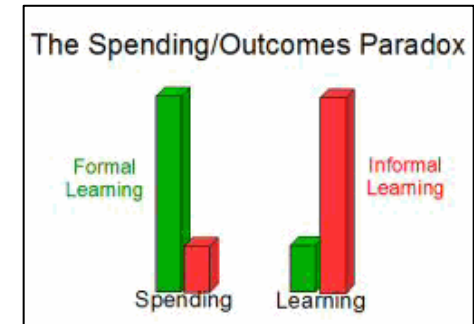


Fig.1: Input-Output Relation for Formal and Informal Learning (Cross 2006)



DER. PFLEGE. ERWEITERUNG. VEREDLUNG.
DES. GEWERBSFLEISSES. DER. BÜRGERKÜNSTE. DES. HANDELS.
FRANZ. DER. ERSTE.



TECHNISCHE HOCHSCHULE