

# Outcomes of the EU-Asia Link Project

---

## Standardisation in Companies and Markets Curriculum Development – eLearning based

### Joint ITU-GISFI-DS-CTIF Standards Education Workshop

on October 8, 2012 Aalborg, Denmark

**Prof. Dr. Ing. em. Wilfried Hesser**

Department of Standardisation and Technical Drawing/CAD ([www.pro-norm.de](http://www.pro-norm.de))

Helmut Schmidt University / University of the Federal Armed Forces Hamburg, Germany

# Standardisation in Companies and Markets

---

## Contents

- 1 Introduction, some historical remarks**
- 2 EU-Asia Link Project - Establishment of an organisation structure**
- 3 Didactic preparation of teaching materials and implementation**
- 4 Content sharing – for lecturers**
- 5 Summary**  
**Important criteria for success and sustainability**

# Introduction, some historical remarks

---

## Phase 1 2000 until 2003

EURAS members have been trying to stimulate standardisation education and have actively tried to promote the inclusion of education in standardisation policies at the national and at the European level for more than a decade (e.g. Hesser 1999, Hesser 2000). This report is an example of a contribution by EURAS itself. Initiatives to stimulate standardisation education have been coming from EURAS members for more than 10 years and include:  
International Workshop on Telelearning: Standardisation for academic and business communities within the EU. Universität der Bundeswehr, Hamburg 28 June 2000.  
(Participants AENOR, AFNOR, DIN, DKE, PKN, SIS, UNI, CEN, ETSI, Siemens, Thyssen Krupp, HAUNI, etc.)

## Phase 2 2003 until 2006 EU-Asia Link Project

EU Asia-Link project 2004-2007: Curriculum and book entitled Standardisation in Companies and Markets (Hesser, Feilzer & de Vries, 2007; 3<sup>rd</sup> Edition 2010)  
E-learning platform: Standardisation in Companies and Markets developed by Prof. Hesser, Helmut Schmidt University, [www.pro-norm.de](http://www.pro-norm.de)

## Phase 3 2007 until 2010

EURAS members have been trying to stimulate standardisation education and have actively tried to promote the inclusion of education in standardisation policies at the national and at the European level.

The EURAS board makes the decision to write a report, 2010:

White Paper, Academic Standardisation Education in Europe;

by Prof. Dr.-Ing. em. Wilfried Hesser and Prof. Dr. Ir. Henk J. de Vries, published 2011

<http://www.pro-norm.de> NEWS 2011 White Paper: Academic Standardisation Education in Europe.

## 2 EU-Asia Link Project - Establishment of an organisation structure

# EU-Asia Link Project - Overview

---

## 2003 until 2006

- **Title of Project: Development of a curriculum  
Standardisation in Companies and Markets**
- **Programme Component:  
Asia-Link Curriculum Development**
- **Duration of the project: 33 months / max. 36 month**
- **Project Budget: EUR 407.086,00 /**
- **funded by the EU: EUR 300.000,00**

# EU-Asia Link Project - Overview



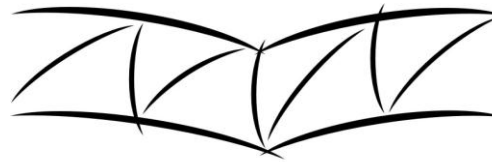
## University of Moratuwa, Sri Lanka

Prof. Dr. R. Gunawardena  
Dr. Perera



## Institute of Technology Bandung, Indonesia

Dr. R.Gautama, Dr. Sukirno



## HELMUT SCHMIDT UNIVERSITÄT

Universität der Bundeswehr Hamburg

Prof. Dr. W. Hesser  
W. Siedersleben, M.Sc./M.A.



## Hanoi National Economics University, Vietnam

Dr. Bui Anh, Mr.V.T.Anh,  
Mr. Hung Pham



## China JiLiang University, PR China

Project Partner Ch. JiLiang  
Prof. Dr. Lu, Prof. Song, Mr. H. Wu

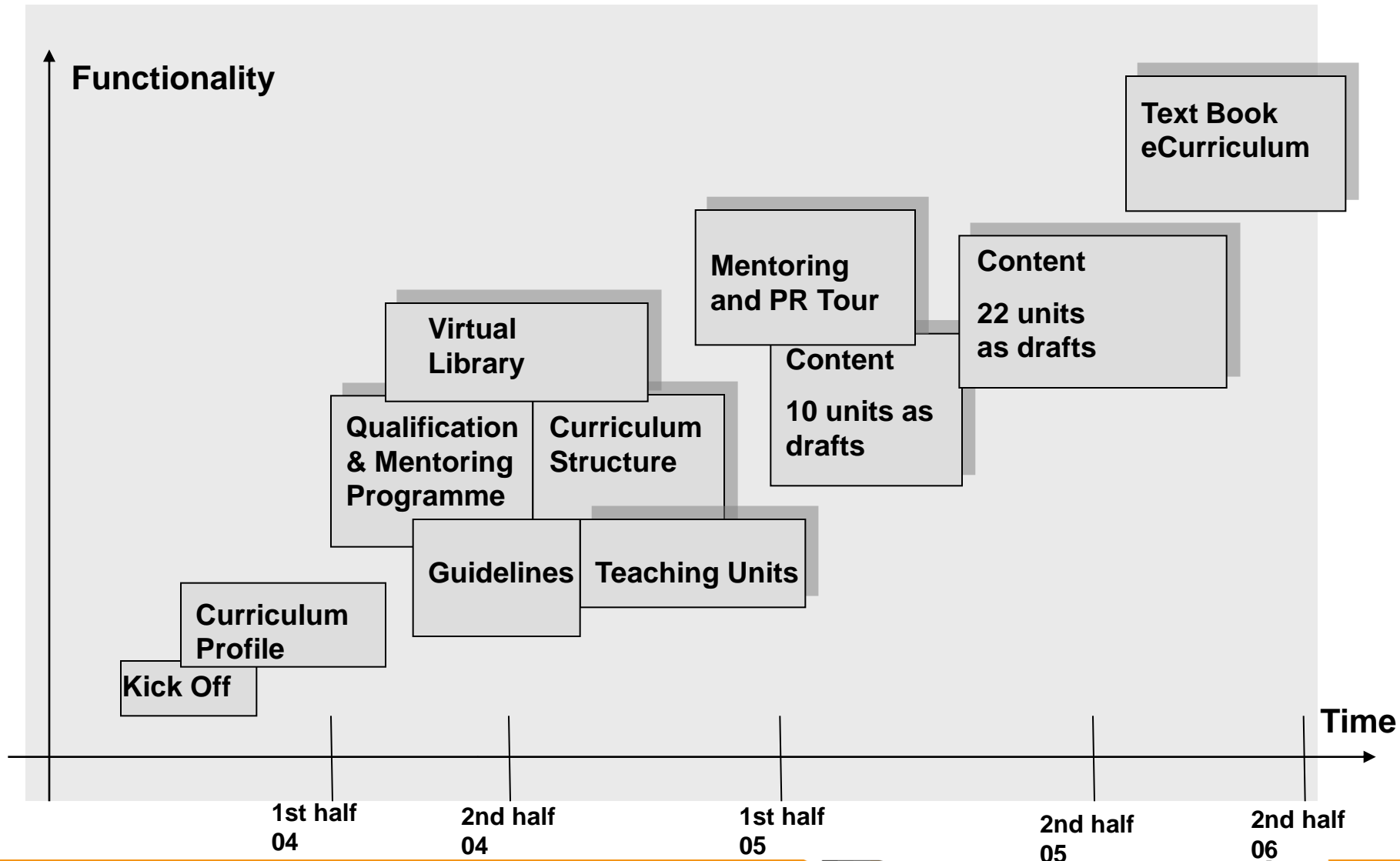


Erasmus Universiteit Rotterdam

## Erasmus University Rotterdam, The Netherlands

Prof. Dr. Albert Feilzer,  
Prof. Dr. H. de Vries

# EU-Asia Link Project Structure



# The Curriculum Units for the textbook and web content

---

## 2004 until 2006

- 01 Fundamentals of standards and standardization
- 02 History of standards and standardization – an introduction
- 03 Economic aspects of standardization
- 04 Development of standards
- 05 Product development and design
- 06 Standardization inside a company – a strategic perspective
- 07 External standardization as a company strategy
- 08 Standardization and innovation
- 09 International standardization
- 10 Standardization and international law
- 11 The European standardization regulatory framework
- 12 The European Union and its standardization policy
- 13 Standardization and law in the Federal Republic of Germany
- 14 The EU and its New Approach



# The Curriculum Units for the textbook and web content

---

**15 Conformity assessment**

**16 Standardization issues in developing countries and countries in transition**

**17 Metrological measurement**

**18 ICT standardization**

**19 Case study: Mobile telecommunications in Indonesia**

**20 Case study: Quality management and ISO 9001 development**

**21 Case study: ISO 14001 implementation**

**22 Case study: Standardization in agriculture**

## **2007 until 2010**

**23 Standards Consortia, Tineke M. Egyedi Delft University of Technology and Richard Hawkins University of Calgary**

**24 ICT Standardisation, Kai Jakobs RWTH Aachen**

**25 Challenges and Approaches of efficient Formal Standardisation, Nicole Riemer, Helmut Schmidt University**

**26 Standardisation strategies of firms, Axel Czaya and Wilfried Hesser, Helmut Schmidt University**



## Welcome to the pro-norm website.

**pro-norm** was developed at and is closely related to the University of Applied Sciences in Hamburg. It was created at the Department of Technical Drawing and represents the expertise in teaching and learning in the field of technical drawing.

- Technical drawing/Design theory and practice
- Standardisation

The teaching contents in the subject area of technical drawing and standardisation are available in multimedia format. These can be purchased by users such as trainees, students and institutions such as vocational academies. Licences for their users. You can obtain further information on the respective sites

- [Technical drawing/design theory](#) (in German and English)
- [Standardisation in Companies and Markets](#) (in German and English)
- [Standardisation in Companies and Markets](#) (in German and English)

With a total of 17 study units on technical drawing in German as well as 26 study units in English on technical drawing and markets, we offer a comprehensive range of courses for students.

We specially provide students with study material to prepare for examinations. For each study unit you receive comprehensive MC tests, FAQs and Java-based interactive tests. The use of multimedia-based study contents greatly improves self-study and the ability of individuals to assess their own performance level. We are quite willing to provide you with support and advice through a forum but do not wish to interfere in any way with the teaching programme at your establishment.

**Joint ITU-GISFI-DS-CTIF Workshop participants, please register FREE OF CHARGE on [www.pro-norm.de](http://www.pro-norm.de) and apply to be included in the selected course **Standardisation in Companies and Markets**(via the “Join” button)**

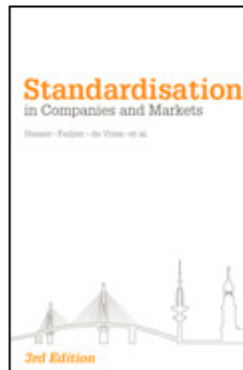


ILIAS LOGIN

E-Learning Platform

Username

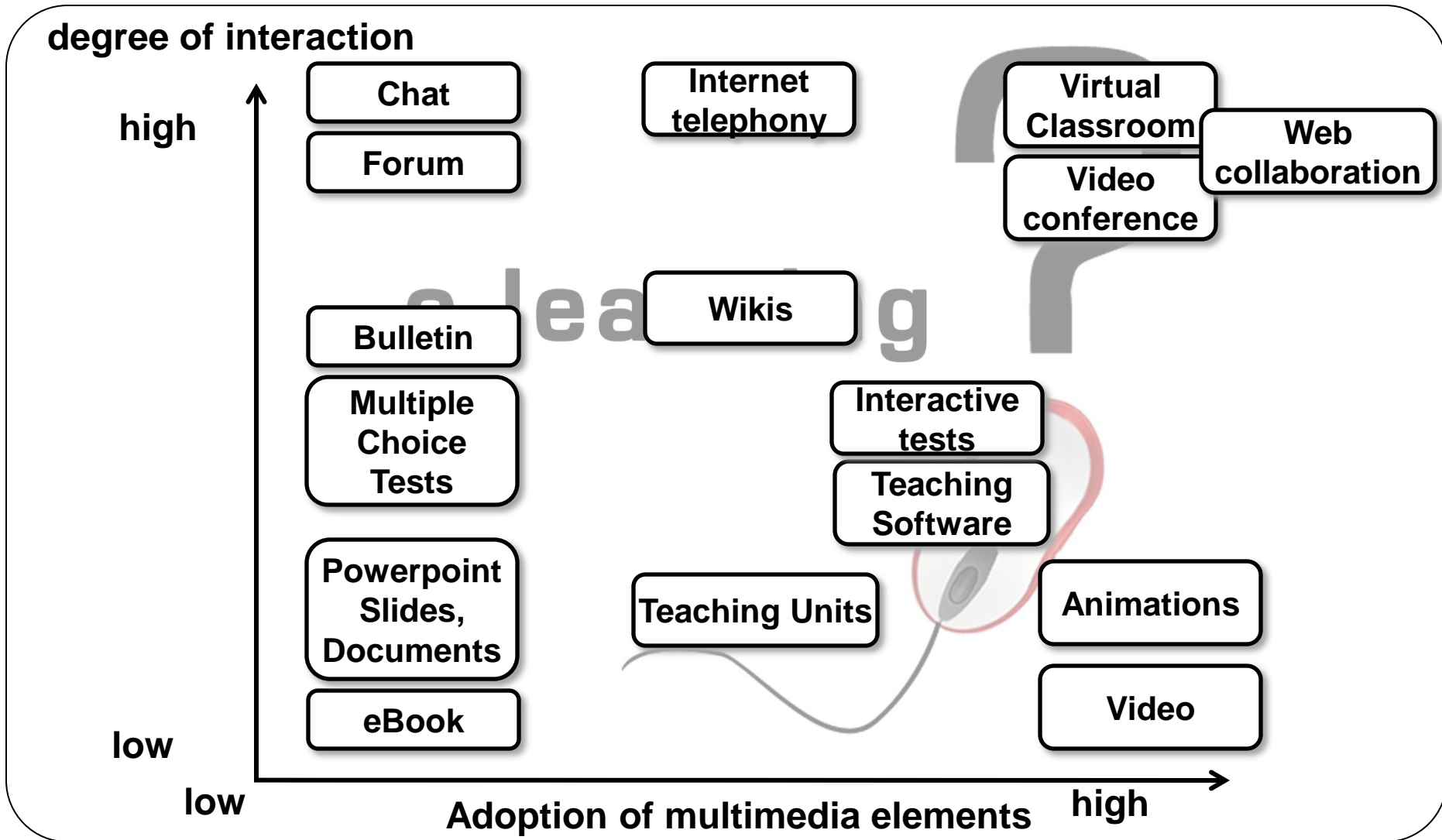
- LOGIN
- REGISTER
- PUBLIC SECTION



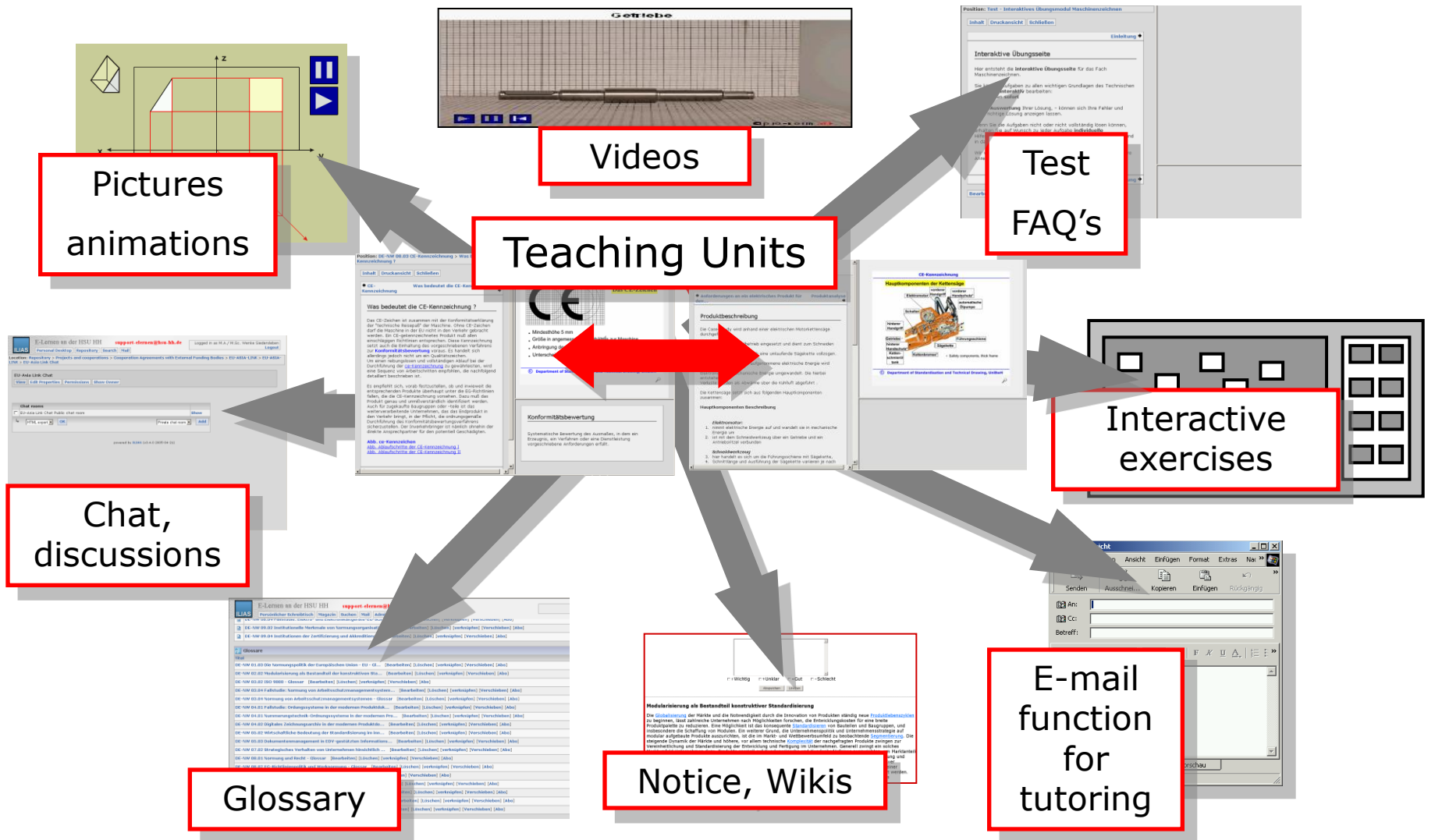
## **3 Didactic preparation of teaching materials and implementation**

Example: Standardisation in Companies and Markets

# Portfolio of e-learning elements



# Different elements of our teaching units



# learning scenario – 3-window technology

**Complex of knowledge**

**Information in text form**

**Media frame with pictures, animations or video**

**Glossary**

5 Standards for conformity assessment-Abstract

6 Notified bodies-Abstract (2/2)

6 Notified bodies-Abstract (1/2)

In the...  
Tra...  
org...  
acc...  
nat...  
are connected to (European) legislation. In the notifying procedure the national authorities report to the European Commission that they have notified a body which is competent to execute this task for all other EU and EFTA member countries too. The danger of such an indication through national authorities is that organizations which are less competent are also notified. Therefore, most member countries require accreditation of the notified body to guarantee the competence of the organization. Another danger is the development of a monopoly situation when access to other competitive institutions in the same country is obstructed. In spite of the fact that an organization can make use of the services of foreign testing and [certification bodies](#), many organizations, especially the smaller ones, prefer one in their own country and language.

[Figure: CE-mark with notified body identification](#)

[Buying the course "Standardisation in Companies and Markets"](#)

European Union (EU)

Family of European countries with similar basic values, political systems and common goals. It provides a framework for economic and political co-operation. Its 25 member states transferred substantial Elements of national

CE-mark with notified body identification

The number beside the CE mark is the identification of the notified body

0044

# Learning Scenario at [www.pro-norm.de](http://www.pro-norm.de)



## EU-STANDARDIZATION IN COMPANIES AND MARKETS

Literature, Bibliography, Guidelines, Content, Articles online

Inhalt Info Einstellungen Mitglieder Lernfortschritt Export Rechte

### Ordner

#### VIRTUAL LIBRARY

Papers / Articles Online, pdf-files

#### BIBLIOGRAPHIES, GUIDELINES, GLOSSARIES

#### 01 Fundamentals of Standards and Standardization

Teaching Unit, MC-Test, Literature

#### 02 An Introduction - The History of Standardisation

Teaching Unit, MC-Test, Literature

#### 03 Economic Aspects of Standardization

Teaching Unit, MC-Test, Literature

### Chats

[EU-Standardisation Chat](#)

Aktive Benutzer: 0





### Foren

[EU-Standardisation Researchers](#)

**Joint ITU-GISFI-DS-CTIF Workshop participants, please register FREE OF CHARGE on [www.pro-norm.de](http://www.pro-norm.de) and apply to be included in the selected course Standardisation in Companies and Markets(via the “Join” button)**



## Tests **Standardisation in Companies and Markets**

-  Fundamentals of Standards and Standardisation
-  An Introduction – The History of Standardisation
-  Economic Aspects of Standardisation
-  Development of Standards



## Exercises **Standardisation in Companies and Markets**

-  Fundamentals of Standards and Standardisation
-  An Introduction – The History of Standardisation
-  Economic Aspects of Standardisation
-  Development of Standards
-  Standardisation in Product Development and Design





## 4 Content sharing – for lecturers



## Networking Group for Lecturers - Standardisation in Companies and Markets

Password protected area for Lecturers of Standardisation in Companies and Markets


Content Info Members

### Content

-  [Teaching Units](#) ▼ Actions
-  [Presentation Slides](#) ▼ Actions  
Power Point Documents
-  [Multiple Choice Tests](#) ▼ Actions
-  [PDF Documents](#) ▼ Actions  
Teaching Units, FAQ, MC-Tests and Exercises as pdf
-  [Forum of Networking Group for Lecturers - Standardisation in Companies and Markets](#) ▼ Actions  
Articles (Unread): 0 (0) New Articles: 0

### Calendar

0 New and Changed  
Appointments

Details:  

## Standardization in Companies and Markets

**Members of this group receive unlimited access to:**

- 1. E-learning units for Standardization in Companies and Markets (26 lectures)**
- 2. PowerPoint presentations relating to the lectures for Standardization in Companies and markets (26 files with a total of ca. 800 PowerPoint slides)**
- 3. Exercises for every lecture**
- 4. FAQs (frequently asked questions) for every lecture**
- 5. Multiple-choice tests for every lecture**
- 6. Forum**

## 5 Summary

### Important criteria for success and sustainability

# Important criteria for success

---

## Success factors

- Publicity for lecture (internal in university)
- Teaching/study concept (lectures, seminars)
- Excellent documents for teaching concept
- Exercises (with practical examples, excursions)
- Supervision of exercises
- Guest lectures (representatives: industry, commerce, NSB)
- Ambitious, interesting Bachelor and Master theses

# Important criteria for success

---

## Success factors






- Develop a national research program for standardisation
- Develop a website: containing tools to teach standardisation and not only PowerPoint presentations, but excellent teaching material
- Develop a national network for teachers, who are interested in teaching standardisation

## eLearning at Helmut-Schmidt University - open source ILIAS

- **no contract dependency**
- **no licence fees**
- **freedom in cooperation**
- **free software development**
- **low investment volume**

# Sustainability of the project

Top-Werte Hits 01.09. – 17.09.2012

No.	Land	Anzahl Hits
1	 China	20.795
2	 United States of America	11.708
3	 Germany	8.561
4	 Russia	4.076
5	 Israel	2.122



# Sustainability of the project

## Short statistics for October 2011 - September 2012

Month	Hits	Files	Pageviews	Sessions
September 2012	60750	55788	46004	7856
August 2012	128699	117217	95938	16487
July 2012	139207	129262	107722	16413
June 2012	107976	99708	84202	13712
May 2012	90066	81179	66513	11550
April 2012	90465	81097	64510	11435
March 2012	96511	83851	60836	9828
February 2012	89561	79496	61628	9802
January 2012	88652	78167	57706	10840
December 2011	83666	74977	58203	10453
November 2011	84511	70801	46329	10956
October 2011	91956	75231	48011	11025
<b>Total</b>	<b>1152020</b>	<b>1026774</b>	<b>797602</b>	<b>140357</b>
<b>Average</b>	<b>96001</b>	<b>85564</b>	<b>66466</b>	<b>11696</b>

**Thank you for your attention!**

**Univ.-Prof. Dr.-Ing. em. Wilfried Hesser**  
**Department of Standardisation and Technical Drawing**  
**Helmut Schmidt University**

**pro-norm**  
**Wilfried Hesser**  
**Nordmarkstr. 30-32**  
**22047 Hamburg, Germany**  
**Tel.: +49 (0)40/667 255, Fax: +49(0)40/667 255**  
**Wilfried.Hesser@HSU-HH.de**

# e-learning elements

---

## e-Learning

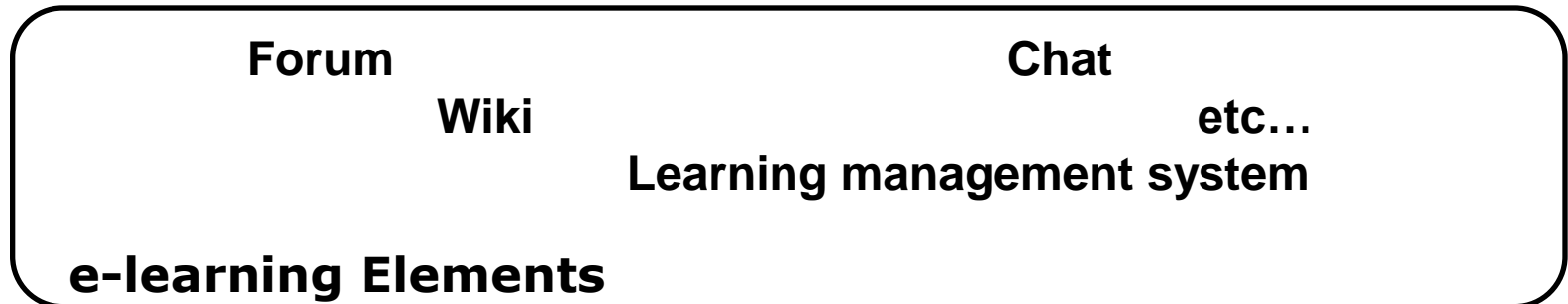
e-learning is defined as all forms of electronic supported learning and teaching, which aim to effect the construction of knowledge with reference to individual experience, practice and knowledge of the learner. Information and communication systems, whether networked or not, serve as specific media to implement the learning process. (cf. Tavangarian et al. 2004)

## Blended Learning

Blended Learning refers to a mixing of different learning environments. A blended learning approach can combine face-to-face instruction with computer-mediated instruction. (cf. Graham 2005)

## Wiki

A wiki ( /wiki/ WIK-ee) is a website that allows the easy creation and editing of any number of interlinked web pages via a web browser using a simplified markup language or a WYSIWYG text editor. Wikis are typically powered by wiki software and are often used to create collaborative websites, to power community websites, for personal note taking, in corporate intranets, and in knowledge management systems.





The screenshot shows the ILIAS website homepage. At the top, there is a blue header with the ILIAS logo and the text "Open Source e-Learning". To the right of the header, it says "You are no". Below the header is a dark blue navigation bar with links for "ILIAS info", "Search", and "Last Visited". Underneath, there is a light blue section with a "Free Download" button (4.1.1 - Latest Stable Release) and a list of links for release notes and reports. To the right, there is a section for "ILIAS 4 e-Learning" with a description, an "Online Demo" button, and a list of links for community forums, bug tracker, and documentation. At the bottom left, there is a "News and Events" section.

ILIAS Open Source e-Learning You are no

ILIAS info Search Last Visited

ILIAS info

 **Free Download**  
4.1.1 - Latest Stable Release

- » [4.1.1 Release Notes](#), 20 Oct 2010
- » [Release Report ILIAS 4.1](#)

**Older Major Releases**

- » [ILIAS 4.0.10](#), 12 Oct 2010
- » [ILIAS 3.10.14](#), 6 Oct 2010

- » [Subscribe to Release Announcements](#)
- » [Installation Instructions](#)

**License**  
ILIAS is available as open source software under the [GNU General Public License \(GPL\)](#).

**ILIAS 4 e-Learning**

Discover the flexible and powerful open source learning management system!

 **Online Demo**  
Try it now. No registration required.

On this site you find all information and documentation about the ILIAS software and how to use it.

- » [ILIAS Community Forums](#)
- » [Bug Tracker](#)
- » [Feature Development Wiki](#)
- » [ILIAS society / ILIAS-Verein](#)
- » [Team](#)

» [Deutsche Fassung](#)

**News and Events**