



towards the european higher education area

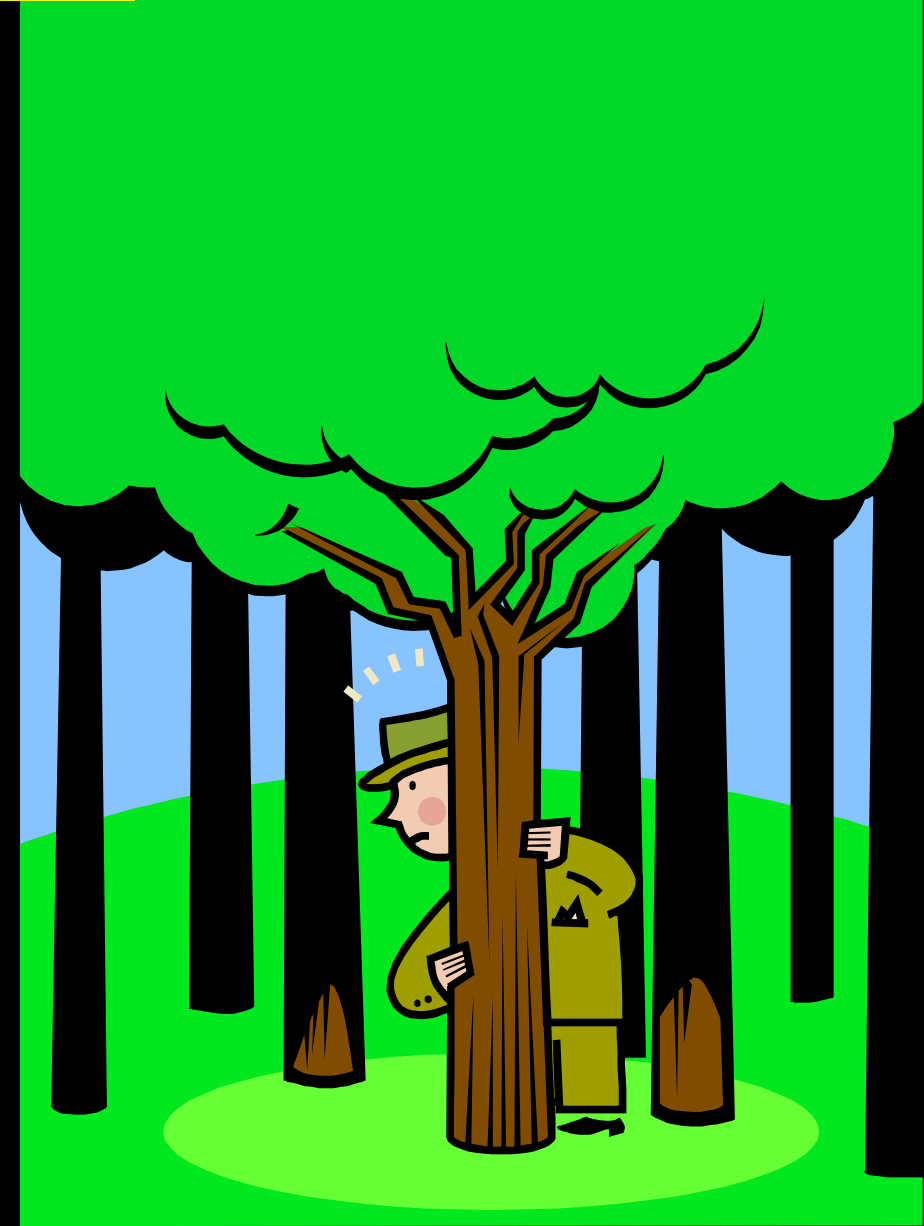
bologna process

# Development of Forest Science Curricula in Europe

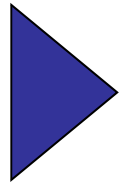
Prof. Dr. Siegfried Lewark

SILVA Network  
Annual Conference 2009

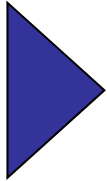
at Aristotle University  
of Thessaloniki



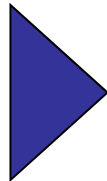
# What to present and discuss ...



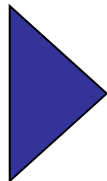
Bologna process – some background



The state of the Bologna transformations



Trends of development



Conclusions

# Die ältesten europäischen Universitäten bis zum 15. Jahrhundert



# European universities of the Middle Ages

founded: year city country

	1088	Bologna,	<i>Italien</i>
 um	1170	Oxford,	<i>England</i>
	1175	Modena,	<i>Italien</i>
 um	1209	Cambridge,	<i>England</i>
	1218	Salamanca,	<i>Spanien</i>
	1222	Padua,	<i>Italien</i>
	1224	Neapel,	<i>Italien</i>
	1229	Toulouse,	<i>Frankreich</i>
	1240	Siena,	<i>Italien</i>
	1253	Paris,	<i>Frankreich</i>
	1254	Sevilla,	<i>Spanien</i>
	1276	Perugia,	<i>Italien</i>
	1289	Montpellier,	<i>Frankreich</i>
	1290	Coimbra,	<i>Spanien</i>
	1290	Lissabon,	<i>Portugal</i>
	1297	Lleida,	<i>Spanien</i>

- **Bologna process**

The Bologna conference in 1999 initiated far-reaching changes of the complete system of higher education in Europe and started a process of a dimension not known hitherto.

- *“Ministers take into due consideration the conclusions of the European Councils in Lisbon (2000) and Barcelona (2002) aimed at making Europe ‘the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion’ and calling for further action and closer co-operation in the context of the Bologna Process.”*

**European  
Higher Education  
Area (EHEA)**

Attractiveness of  
EHEA



Linking EHEA & ERA



Lifelong learning

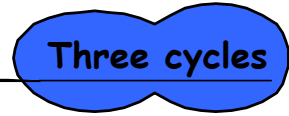
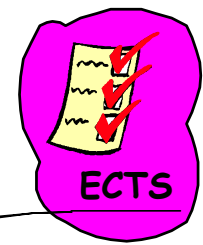
European dimension



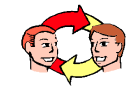
Quality assurance



System of degrees

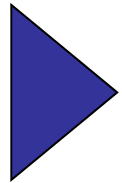


Institutions &  
students

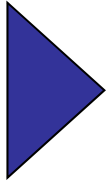


Mobility

# What to present and discuss ...

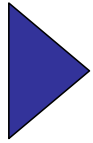


Bologna process – some background

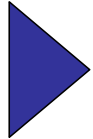


The state of the Bologna transformations

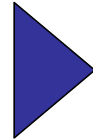
## *Bologna conferences*



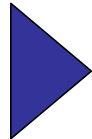
1997 Paris, Sorbonne



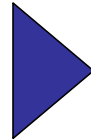
1999 Bologna



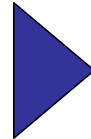
2001 Prague



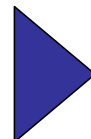
2003 Berlin



2005 Bergen



2007 London



2009 Benelux





The official Bologna Process website 2007-2010

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- News
- Calendar of Events
- About the Bologna Process
- Participating Countries and Organisations
- Bologna Work Programme / Bologna Action Lines
- Bologna Seminars
- Main Documents
- 2009 Ministerial Conference
- 2009 Bologna Policy Forum
- 2010 Ministerial Conference

## Main documents

- [Documentation of the 2009 Ministerial Conference](#)
- [Ministerial Declarations and Communiqué](#)
- [Lisbon Recognition Convention](#)
- [Standards and Guidelines for Quality Assurance in the European Higher Education Area \(ESG\)](#) - adopted by Ministers in May 2005
- [A Framework for Qualifications in the European Higher Education Area](#) - adopted by Ministers in May 2005
- [A Framework for Qualifications in the European Higher Education Area](#) - background report
- [Strategy for the EHEA in a global setting](#) - adopted by Ministers in 2007
- [Report on the Bologna Process in a global setting](#) - background report

## Other relevant documents

- Booklet on Bologna Process and EHEA: [web version](#), [print version](#), [professional printing](#)
- [General reports prepared for ministerial conferences](#)
- Stocktaking reports [2005](#), [2007](#), [2009](#)
- National reports [2005](#), [2007](#), [2009](#)
- [EUA Trends reports](#)
- Bologna with Student Eyes [2005](#), [2007](#), [2009](#)
- [Eurydice: Focus on the structure of higher education in Europe. National trends in the Bologna Process 2006/07](#)
- [Working group reports 2007](#)



Bologna Scorecard

**GERMANY**

> DEGREE SYSTEM <

1. Stage of implementation of the first and second cycle
2. Access to the next cycle
3. Implementation of national qualifications framework

> QUALITY ASSURANCE <

4. National implementation of *Standards and Guidelines for QA in the EHEA*
5. Stage of development of external quality assurance system
6. Level of student participation
7. Level of international participation

Bologna Scorecard

**NORWAY**

> DEGREE SYSTEM <

1. Stage of implementation of the first and second cycle
2. Access to the next cycle
3. Implementation of national qualifications framework

> QUALITY ASSURANCE <

4. National implementation of *Standards and Guidelines for QA in the EHEA*
5. Stage of development of external quality assurance system
6. Level of student participation
7. Level of international participation

Bologna Scorecard

**GREECE**

**DEGREE SYSTEM**

1. Stage of implementation of the first and second cycle
2. Access to the next cycle
3. Implementation of national qualifications framework

**QUALITY ASSURANCE, ESG**

4. Stage of development of external quality assurance system
5. Level of student participation in quality assurance
6. Level of international participation in quality assurance

**RECOGNITION**

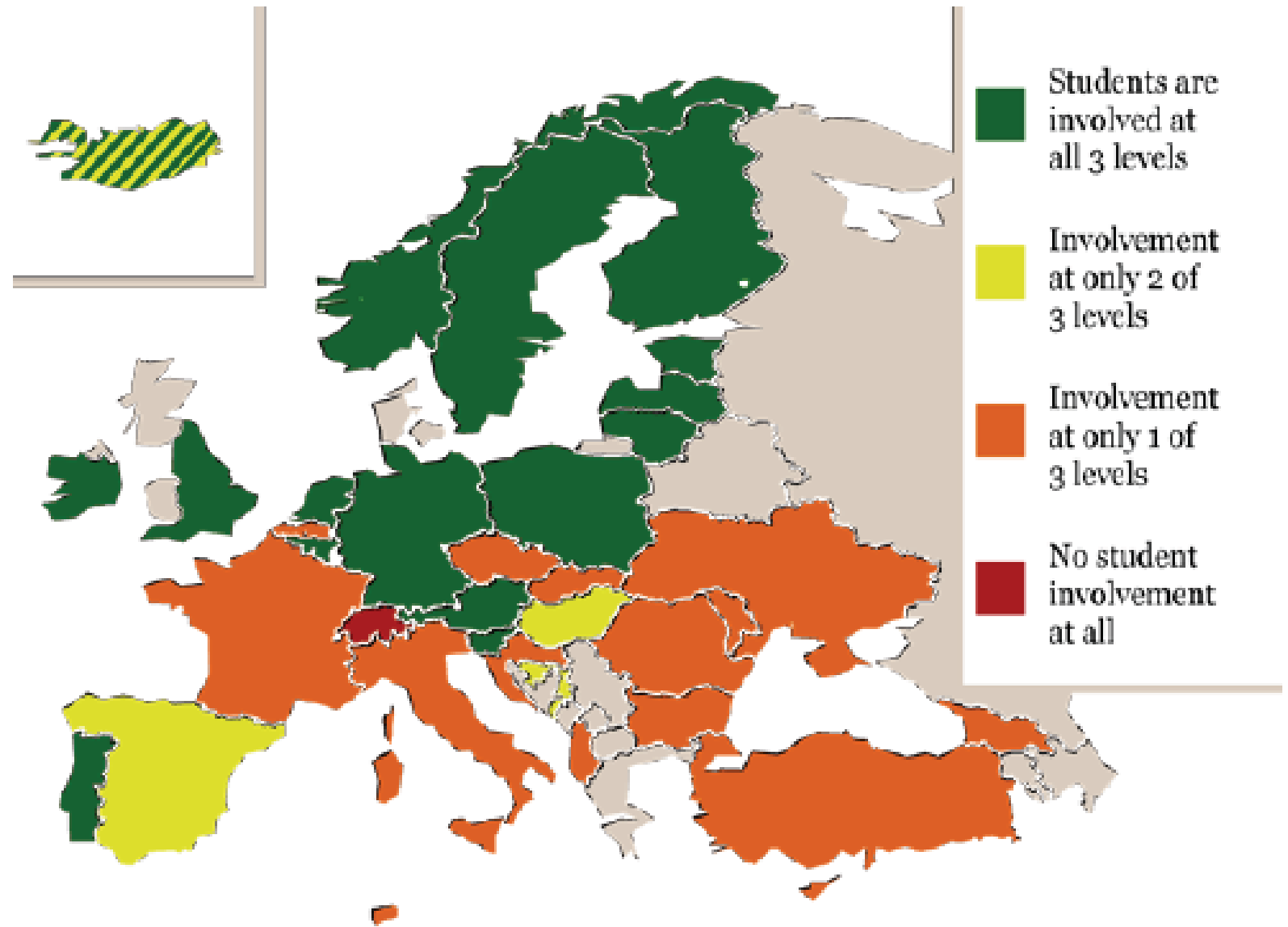
7. Stage of implementation of diploma supplement
8. National implementation of the principles of the Lisbon Recognition Convention
9. Stage of implementation of ECTS
10. Recognition of prior learning



# **BOLOGNA WITH STUDENT EYES**

**2007 EDITION**

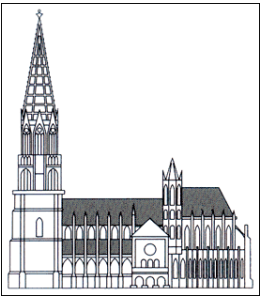
**Fig.3: map student participation in QA**



# •Objectives and reality

- A main objective of the Bologna process is shortening the study time for the majority of students, who would be ready for the labour market with a BSc, whereas the others would go on with a master's programme or come back for a master's programme after some years of occupational experience.

In reality it seems that the labour markets are not well prepared for BSc graduates in many European countries.



# The example of the forestry & related curricula at the University of **Freiburg**

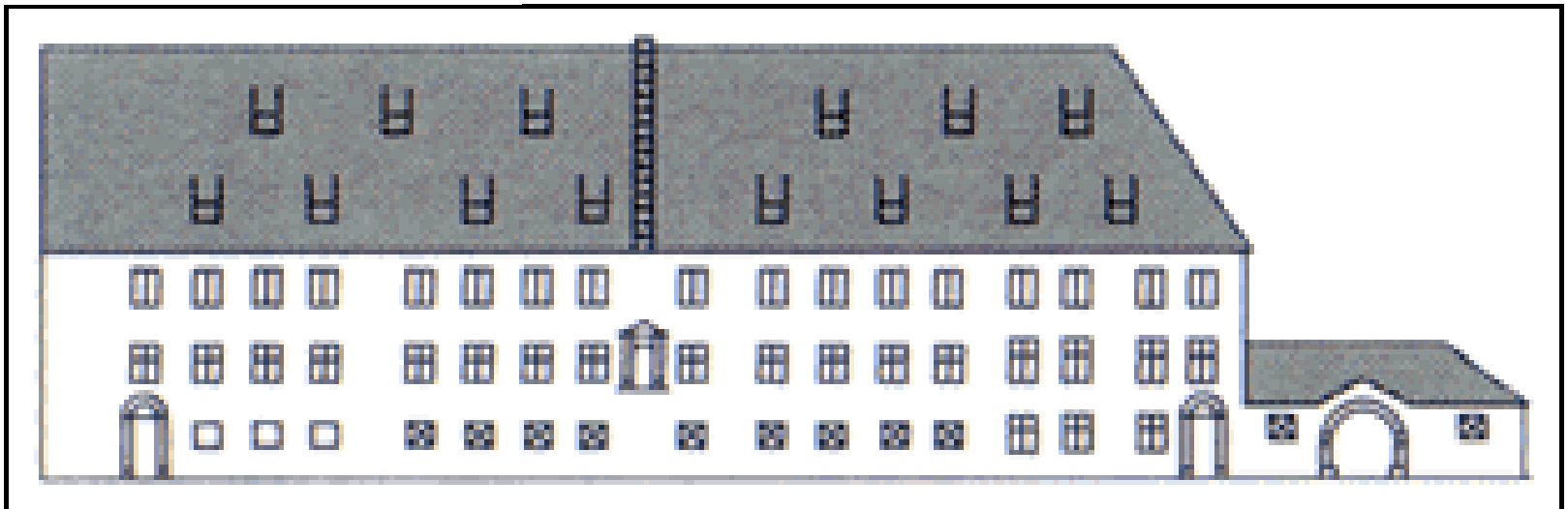


University from 1457

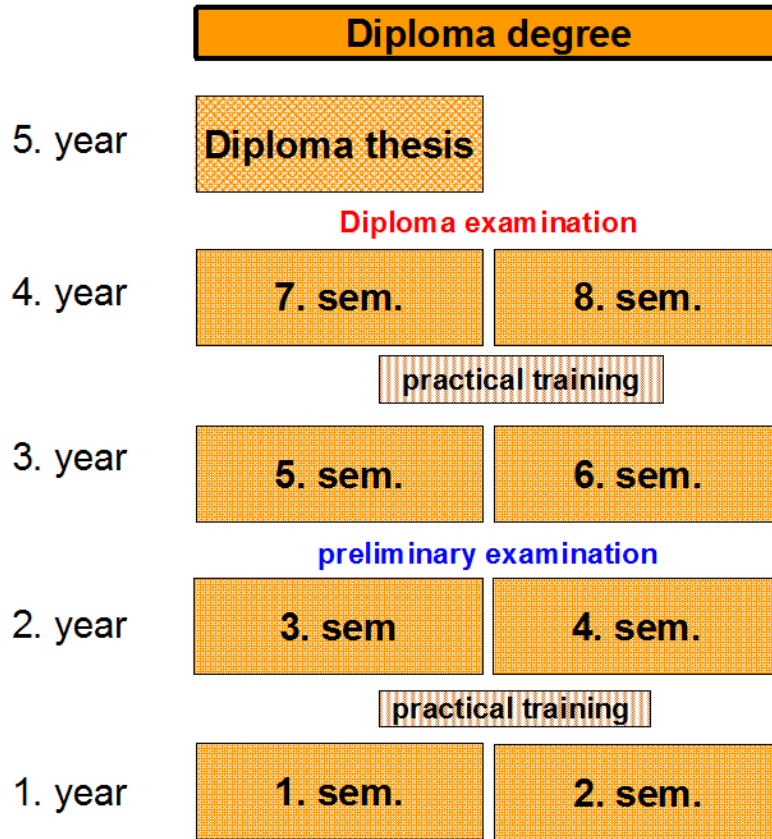
Faculty of Forest Sciences 1921

Faculty of Forest and Environmental  
Sciences 2002

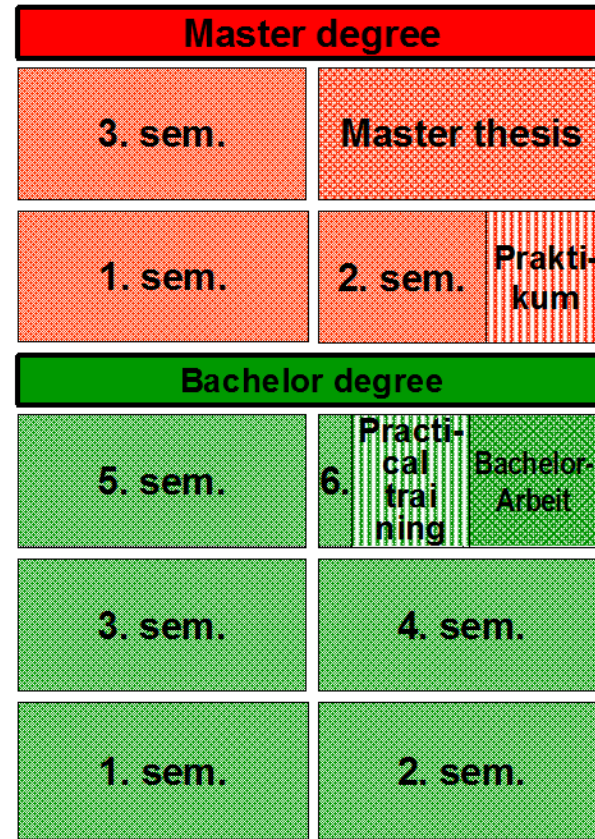
by merging with Geo Sciences Faculty



### Diploma curriculum (old)



### Bachelor / Master (new)



after Fink 2005



**Master**  
4 semesters  
(new in 2008)  
120 ETCS credits

**Geography  
of Global  
Change**

**Hydrology**

**Forest  
Sciences**

**Renewable  
Energy  
Management**

**Master**  
4 semesters  
(start in 2005)  
120 ETCS credits

**Forest  
Ecology  
and  
Management**

**European  
Master of  
Forestry**

**Environ-  
mental  
Governance**

**Bachelor**  
6 semesters  
(start in 2005)  
120 ETCS credits

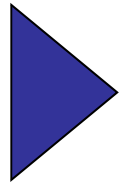
**Geography**



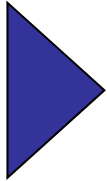
**Forest  
Management  
and  
Environment**

Minor fields of study (within faculty of forestry and environmental sciences) (40 ETCS credits):  
e.g.  
- Nature protection and landscape management  
- Wood and bioenergy  
- International forestry  
- Meteorology and climatology  
- or minor fields outside faculty)  
plus transferable skills courses (20 ETCS credits)

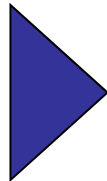
# What to present and discuss ...



Bologna process – some background



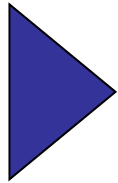
The state of the Bologna transformations



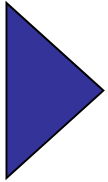
Trends of development

# The Bologna process

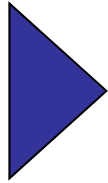
- some trends in forestry curricula



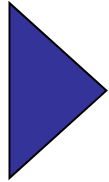
diversification



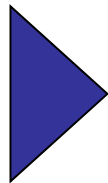
reform of reform: 4 years BSc?



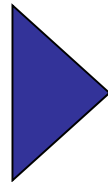
third cycle: PhD



internationalisation

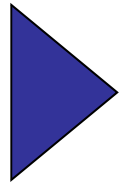


centralized functions

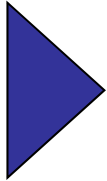


Alumni taken in view

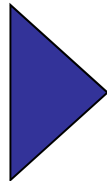
## some conclusions ...



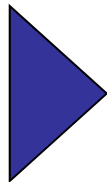
shape the process!



see the graduates outside of forestry



learner in the center



we are stronger together



towards the european higher education area

bologna process

# Development of Forest Science Curricula in Europe

Prof. Dr. Siegfried Lewark

SILVA Network  
Annual Conference 2009

at Aristotle University  
of Thessaloniki

