European Higher Education: Key Trends and Challenges

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The European higher education and research system (EHER) is in a state of flux. Multiple, deeply-rooted initiatives at the levels of

- Whole continent
- European Union (EU)
- Nations
- Institutions

Our purpose: describe and analyze the key challenges and trends

Outline

- Strengths and weaknesses of EHER
- Main initiatives at the four different levels
- Special focus on the Bologna process, on quality assurance and national initiatives
I

Strengths and weaknesses of higher education in Europe
The two dimensions of the EHER:

1) Europe of the Council of Europe and the Bologna process (approx. 47/6 countries)
2) Europe of the European Union (27 countries)
Main characteristics of Europe and EHER

Europe, a very diverse continent with large disparities

A few global figures

- Population: 735 mio.
- Number of countries and territories: 51 (4 > 50 mio.; 24 < 5 mio.)
- Number of spoken languages: 225
- GNP/head (PPP) 18’550 $ (13 > 30’000 $; 14 < 10’000 $; 6 < 6000 $)
- Aging population
Main characteristics of Europe and EHER

- Centralized and federal systems
- Unitary and binary systems
- Research done in universities and/or research centers (French CNRS, German Max Planck Institutes, East-European academies...)
- Low to high institutional autonomy
- Extremely few private institutions in Western Europe, large number in Eastern Europe and Russia
- University-industry collaboration in research: progressing but.....
- Tuitions fees in public universities:
  - None in 7 countries
  - > 1000 $ in 2 countries
  - > 250 and < 1000 in all others
- Public vs. private financing (see next slide)
## Expenditures on educational institutions as % of GDP (2005)

### European OECD countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Public</th>
<th>Private</th>
<th>Total</th>
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### Non-European OECD countries

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<tr>
<td>United States</td>
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<td>1.9</td>
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# Academic rankings of universities

<table>
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<th>Rank</th>
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<th>Webometrics</th>
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<td>Top 20</td>
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<td>13 US 4 EUR (UK)</td>
<td>20 US 0 EUR</td>
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<td>Top 200</td>
<td>17 US 2 EUR (UK)</td>
<td>90 US 79 EUR</td>
<td>106 US 61 EUR</td>
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<td>Top 500</td>
<td>90 US 79 EUR</td>
<td>57 US 80 EUR</td>
<td>189 US 222 EUR</td>
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II
Main initiatives
Main strength of Europe: wealth of cultural diversity

However, most European countries are not doing as well as they should in the knowledge driven global society: a two-fold observation:
- USA is doing better since the 50s
- Many new emerging countries are investing heavily in EHER

Reactions at the turn of the 21st century: many initiatives launched at European and national levels to improve
- Teaching and learning
- Research
The (Sorbonne) Bologna process

The process:
- Launched by 4 countries in Paris at “La Sorbonne” in 1998 and confirmed in Bologna by 29 countries in 1999
- Since then, admission of new countries to include today 46 countries

The objective:
- Improve the EHiEd system by creating the EHEA by 2010 where students and teachers can move freely

The main pillars
- Harmonization to three study cycles: Ba/s, Ma/s and Doctorate (approx. 3+2+3 years or 180 +120=300 ECTS + doctorate studies)
- Generalization of the European Credit Transfer System (ECTS) and diploma supplement
- Generalization of a quality assurance or accreditation system
- + a few accompanying measures, in particular definition of learning outcomes
The actors

- Ministries of Education of participating countries,
- Two governmental organizations (European Commission and Council of Europe)
- A few non-governmental organizations, in particular EUA, ESU (European Student Unions) and ENQA (European Association for Quality Assurance)
- Rotating presidency; no permanent secretariat
Bologna process (3)

- **Implementation**
  - Each country had to promulgate national directives (= national interpretation)
  - Each institution and subdivision (faculty, school, department) had or still has to revise their study programs
  - By 2010, the process should be finished (= birth of the EHEA)

- **Monitoring**
  - Ministers stocktaking exercises
  - EUA Trend reports
  - European Students Union (ESU) Bologna with student eyes
Successes:

- Unique mobilization of energies within the whole continent; relatively few or weak opposition thanks to the determination of all: ministries, institutions, students
- Promotion of a sense of belonging to the European continent and the habit of working together (in English)
- Opportunity taken by many - but by far not all - institutions to revisit their teaching programs and to improve teaching and learning => student-centered approach
- Greater European mobility made possible thanks to the generalization of ECTS
- Promotion of quality assurance in European higher education institutions and at national levels
Shortcomings

- National directives and implementation at institutional and disciplinary levels vary significantly.
- Many countries entered late into the process (or started late) so that they will hardly meet the deadline.
- Master studies are the object of a (too) great variety of solutions:
  - Differing length
  - Confusion between “consecutive”, “executive”, “professional”, “lifelong learning” masters, as well as masters of advanced studies.
  - Growing confusion between universities and vocational or teaching colleges.
The measures decided by the Ministers in the second phase of the process are of a more technical nature: danger that the system will be taken over by bureaucrats (learning outcome?)

And, last but not least, the HiEd system has become more scholarly, which makes it paradoxically more difficult for students to be mobile.

In sum:

In order to allow Europe to take full advantage of the knowledge driven global economy, the scope and speed of reforms should be changed.

The Bologna process was a necessary step, but should be complemented by many other measures. Some are taken at the European Union level, others at national levels.
2000: European Council launches the Lisbon strategy “to deliver stronger, lasting growth and create more and better jobs”

- Put HE and research at the center of policies:
  - Improve the quality and effectiveness of EU education and training
  - Ensure that these systems are accessible to all and promote LLL
  - Internationalize education and training
  - Increase institutional funding by setting national benchmarks: 2% public spending on education and 3% on research
  - Enhance the impact of research funding
  - Push to increase institutional autonomy and improve institutional governance
Other related initiatives:

- 7th Research Framework Programme (with longer duration 7 years)
- European Research Council - EUR 7.5 b for 2007/14
- Further coordination between national and European research programmes through new mechanisms
- European Structural and Social Funds - new emphasis on Lisbon Objectives in Research and Innovation
- European Researchers’ Charter and Code of Conduct/Research Careers and Mobility/Researcher’s Passport
- European Institute of Technology - EUR 309 m for 2008/13 - first two “communities” (HEIs, research, industry) on energy and climate change => innovation to the market
Lisbon strategy (3)

The EC’s guiding hand:

- Communication on Modernisation Agenda for Universities
- Communication on Improving Knowledge Transfer between Research Institutions and Industry
- ‘Green Paper’ on Future of the European Research Area: Consultation and Follow-Up
Bologna and the Lisbon agenda

- Bologna: a stakeholder approach => cooperation
- Lisbon: naming and shaming => competitiveness
- The intersection of Bologna + Lisbon:
  - Increased role for EU in education
  - More attention paid to doctoral education
  - Will cooperation or competition dominate?
National initiatives

Some countries are mainly working on structural measures as for example:

- A clarification between different types of HiEd institutions (moving to a unitary system in England, upgrading vocational colleges in Switzerland, promoting the private sector in Austria, etc....)
- Promoting a better division of labor between institutions or increasing critical mass through larger individual institutions (Belgium, France, ....)
- Promoting quality assurance (creation of national quality agencies, encouraging internal quality measures within institutions)
- Promoting institutional autonomy
- Others countries are increasing the financial effort, mostly on a conditional basis (England, Switzerland)
- However, in many countries, the system is badly underfinanced and over-regulated (East and South European countries)
German excellence initiative

- “Germany needs one elite (world class) university”
  (Federal minister of education, Mrs. E. Buhlman, in 2004)
- 2005: launch of the Excellence Initiative (1.9 b € (=2.5 b $) made available by the Federal and 16 State Governments
- Competition organized to select outstanding projects in three areas (pillars)
  - Graduate schools to promote young scientists and researchers
  - Clusters of excellence to promote cutting-edge research
  - Institutional strategies to promote top-level research
Selection process organized in two rounds (2005/06 and 2006/07) by the German Research Council (DFG) and the German Council of Science and Humanities

More than 600 draft proposals were received in the two rounds and reviewed by internationally appointed panels of experts (almost 2000!)

Final decision made by a grant committee composed of
- the committees set up by the Research and Science councils
- the 17 Federal and State Ministers responsible for science and research
German excellence initiative (3)

Impact

- Significant interest
- Awareness of the necessity to have a more differentiated and competitive system
- Large mobilization to propose new solutions
- Too early to evaluate: probable boost of the university system and prolongation for another 5 years
Graduate Schools to promote young scientists and researchers

Clusters of Excellence to promote cutting-edge research

Institutional Strategies to promote top-level research

The numbers in the symbols indicate on which pages the projects can be found in this brochure.

Abbreviations:
FU = Free University Berlin
HU = Humboldt University Berlin
LMU = University of Munich
MedH = Medical School
TH = University of Technology
TU = Technical University
U = University
France (1)

History:

- 13th Century: First universities in France
- 1793: suppression of 22 universities
- 1793 to 1968: no real universities in France: professional grandes écoles (Polytechnique, Centrale, ...) and independent faculties (law, medicine, humanities, sciences) => Fragmentation into small structures
- 1930: creation of national research institutes to address lack of critical mass in facing the new research challenges
- 1970’s: massification leads to dividing existing pluridisciplinary universities into more specialized institutions (humanities and social sciences, engineering, sciences, etc.)
In the past fifteen years:

- 4-year contracts between universities and the ministry: institutions develop institutional strategies, especially in research => strengthened the role of the university president and the senior management team.

- The devolution of power from Paris to the regions => emergence of regional economic development policies with a central role for HE

- Globalization and the resulting worldwide competition => funding incentives for greater cooperation across neighboring institutions (some merger activities) in order to create critical mass and ensure greater visibility of French universities; funding to improve graduation rates and campus buildings.

- The place and power of the national research organizations are slowly but surely diminishing: there is a marked shift to anchor research in universities.
In the past three years:

- Creation of a new QA agency responsible for the evaluation of programs/institutions and research
- Creation of a new research funding agency
- New law on autonomy (18 institutions):
  - total control of budget
  - responsibility for hiring/promotion, salaries and bonuses
  - smaller governing boards (including external stakeholders)
  - creation of a foundation
  - ownership of buildings
2007 OECD report:

- Public expenditure on research one of the lowest in Europe.
- Very few PhD’s: “the number of researchers with a PhD or equivalent working in industry was only 189 in 2003”.
- A landscape cluttered with “obsolete laws and conflicting regulations”, e.g.:
  - Staff are civil servants - ministry controls their appointment, promotion, etc.
  - Very detailed regulations in respect to institutional governance
  - Institutions are not allowed to roll over their surplus, which restricts their ability to commit to multi-year projects
  - Government policies on fiscal audits require all institutions to submit overly detailed and complex reports on expenditures
  - The total number of students is set by the state
  - Universities can set up spin-off companies but cannot hold shares without permission from the finance ministry
1. New law of July 2007:
   - By September 2008, every HEI must have adopted new statutes and put in place new structures:
     - Smaller governing boards, a mixture of internal and external members
     - Rector no longer elected by the university community but selected by the board
     - Universities may apply to become public foundations
   - By March 2009 every HEI must complete a full audit of its property portfolio
   - By March 2009 every university must reach a PhD-student ratio of 1:30, at least 50% of PhD holders being full-time staff and every polytechnic must have at least 15% of the teaching staff with PhD

2. New buffer organization - HE Council - to be launched

3. New QA agency launched
• Institutional level: Internal quality procedures are developing rapidly

• European level:
  - European Standards and Guidelines (ESG)
  - European Register of Quality Agencies (EQAR)
  - European QA Forum
  - New ranking instrument coming up soon
Quality assurance (2)

National level (ENQA survey 2008)

- Two-thirds of QA agencies evaluate/accredit study programs but for 50 percent: combination of institutional and program evaluation or accreditation
- The national systems are well established and seem dynamic: three quarters of agencies have changed their approach recently or are about to do so in the near future but:
  - 9 out of 36 agencies made only small adjustments
  - Of the 27 that made significant changes:
    - 8 modified their approach in order to align with ESG
    - 3 switched to another procedure
    - 16 added a new type of procedure on top of the existing one(s)
By way of a conclusion (1)

Challenges:

- Two European universities in the Shanghai top 20
- Average spending on students: $10,191 (USA: $22,476)
- 1.3% of GDP on HE (2.9 in USA)
- Ever-declining share of Nobel prizes
- Constrained institutional autonomy
- 24% of working-age Europeans have a degree (39% USA) + Aging of the population but lifelong learning and access not always central in institutional strategies
By way of a conclusion (2)

Current threats:

- Financial crisis starting to affect some countries (e.g., Germany, Iceland, Italy, Ireland, Latvia, Spain, UK, etc.)
- “Late-Bologna” implementers are facing problems of understanding on the students’ part because of the intersection of Bologna/Lisbon/financial crisis
- Role of EU: more latitude given to member states weakens the EC although it is placing more urgency on HE and research as long-term investment in the future
By way of a conclusion (3)

Responses:

- Bologna process => globally positive changes
- European Research Council will boost capacity for pioneering research
- New trends in governance:
  - More autonomy through changing legal frameworks
  - Strengthened executive leaders, governing boards and administrative staff/processes; weakened and smaller consultative bodies
  - Increased importance of institution-wide strategy
  - Increased internal and external accountability: Changes in external QA although still too little consideration of the need to support institutions in their new role in the knowledge society
What remains to be done:

- Continue the modernisation of European universities - overcoming national fragmentation, breaking down institutional barriers, improve governance structures, make LLL a reality
- Universities need more autonomy, funding and recognition
- Re-think curricula systematically for better employability of graduates at all levels - focus on competences & learning outcomes, increasing transparency & flexibility & involving partners
- Strengthen ‘knowledge triangle’ - teaching, research and innovation - as part of the drive for excellence; diversifying funding sources, adapting and up-grading infrastructure