

# **European Higher Education:**Key Trends and Challenges

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#### Introduction and outline

- The European higher education and research system (EHER) is in a state of flux. Multiple, deeply-rooted initiatives at the levels of
  - **ü** Whole continent
  - European Union (EU)
  - **ü** Nations
  - **ü** Institutions
- Our purpose: describe and analyze the key challenges and trends
- Outline
  - **ü** Strengths and weaknesses of EHER
  - **ü** 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)

#### Countries Engaged in the Bologna Process

- 1. Albania
- 2. Andorra
- Azerbaitan

- Bosnia and Herzegovina
- 10. Cyprus
- Czech Republic

- 15. France
- 15. Georgia
- 17. Germany
- 18. Greece
- 19. Holy See 20. Hungary
- 21 Iceland 22. Ireland
- 23. Italy
- 24. Latvia E. Liechtenstein
- 28. Lithuania 2T. Luxembourg

- Macedonia .

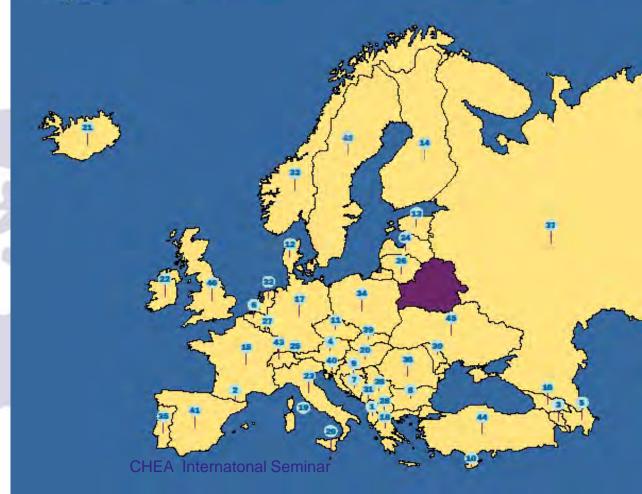
- 32. Netherlands

- **Portugal**
- 37 Russian Federation

- 38. Serbia and Montenegro
- 39. Slovak Republic
- 40. Slovenia
- 41. Spain
- 42. Sweden
- 43. Switzerland
- 44. Turkey
- 45. Ukraine 46. United Kingdom

#### Total: 46

= Bologna Process Country





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

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## 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:
  - **ü** None in 7 countries
  - **ü** > 1000 \$ in 2 countries
  - **ü** > 250 and < 1000 in all others
- Public vs. private financing (see next slide)



## Expenditures on educational institutions as % of GDP (2005)

| European OECD countries      |                     | Tertiary education   |       | Non European OECD countries | _                   |                      | 1     |
|------------------------------|---------------------|----------------------|-------|-----------------------------|---------------------|----------------------|-------|
|                              | Public <sup>1</sup> | Private <sup>2</sup> | Total |                             | ı                   | ertiary education    |       |
|                              | rubiic ·            | Filvate -            | Total |                             |                     |                      |       |
| Acceptain                    | 4.0                 | 0.4                  | 4.2   |                             | Public <sup>1</sup> | Private <sup>2</sup> | Total |
| Austria                      | 1.2                 | 0.1                  | 1.3   |                             |                     |                      |       |
| Belgium                      | 1.2                 | 0.1                  | 1.2   |                             |                     |                      |       |
| Czech Republic               | 0.8                 | 0.2                  | 1.0   |                             |                     |                      |       |
| Denmark <sup>4</sup>         | 1.6                 | 0.1                  | 1.7   | Australia                   | 0.8                 | 0.8                  | 1.6   |
| Finland                      | 1.7                 | 0.1                  | 1.7   |                             |                     |                      |       |
| France                       | 1.1                 | 0.2                  | 1.3   | Canada <sup>3, 4</sup>      | 1.4                 | 1.1                  | 2.6   |
| Germany                      | 0.9                 | 0.2                  | 1.1   |                             |                     |                      |       |
| Hungary                      | 0.9                 | 0.2                  | 1.1   | Chile <sup>5</sup>          | 0.3                 | 1.5                  | 1.8   |
| Ireland                      | 1.0                 | 0.1                  | 1.2   |                             |                     |                      |       |
| Italy                        | 0.6                 | 0.3                  | 0.9   | Israel                      | 1.0                 | 0.9                  | 1.9   |
| Netherlands                  | 1.0                 | 0.3                  | 1.3   |                             |                     |                      |       |
| Poland                       | 1.2                 | 0.4                  | 1.6   | Japan <sup>4</sup>          | 0.5                 | 0.9                  | 1.4   |
| Portugal                     | 0.9                 | 0.4                  | 1.4   |                             |                     |                      |       |
| Slovak Republic <sup>4</sup> | 0.7                 | 0.2                  | 0.9   | Korea                       | 0.6                 | 1.8                  | 2.4   |
| Slovenia                     | 1.0                 | 0.3                  | 1.3   |                             |                     |                      |       |
| Spain                        | 0.9                 | 0.2                  | 1.1   | New Zealand                 | 0.9                 | 0.6                  | 1.5   |
| Sweden                       | 1.5                 | 0.2                  | 1.6   |                             |                     |                      |       |
| United Kingdom               | 0.9                 | 0.4                  | 1.3   | United States               | 1.0                 | 1.9                  | 2.9   |



## Academic rankings of universities

|         | Shanghai Jia<br>Tong  | THES       | Webometrics       |
|---------|-----------------------|------------|-------------------|
| Top 20  | 17 US                 | 13 US      | 20 US             |
|         | 2 EUR (UK)            | 4 EUR (UK) | 0 EUR             |
| Top 200 | 90 US                 | 57 US      | 106 US            |
|         | 79 EUR                | 80 EUR     | 61 EUR            |
| Top 500 | 159 USA<br>210 Europe |            | 189 US<br>222 EUR |

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## Strengths and challenges

- 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:
  - **ü** USA is doing better since the 50s
  - Many new emerging countries are investing heavily in EHER
- Reactions at the turn of the 21<sup>st</sup> century: many initiatives launched at European and national levels to improve
  - **ü** Teaching and learning
  - **ü** Research



## The (Sorbonne) Bologna process

#### The process:

- **ü** Launched by 4 countries in Paris at "La Sorbonne" in 1998 and confirmed in Bologna by 29 countries in 1999
- u Since then, admission of new countries to include today 46 countries

#### The objective:

i Improve the EHiEd system by creating the EHEA by 2010 where students and teachers can move freely

#### The main pillars

- **ü** 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
- **ü** Generalization of a quality assurance or accreditation system
- u + a few accompanying measures, in particular definition of learning outcomes



## Bologna process (2)

#### The actors

- **ü** Ministries of Education of participating countries,
- Two governmental organizations (European Commission and Council of Europe)
- **ü** A few non-governmental organizations, in particular EUA, ESU (European Student Unions) and ENQA (European Association for Quality Assurance)
- **ü** Rotating presidency; no permanent secretariat
- Ministers' conferences every two years (Sorbonne, 1998, Bologna, 1999, Prague, 2001, Berlin, 2003, Bergen 2005, London, 2007 and Leuven & Louvain-la-Neuve, 2009), each concluded with a "communiqué"



## 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
- **ü** By 2010, the process should be finished (= birth of the EHEA)

#### Monitoring

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



## Bologna process (4)

#### Successes:

- Unique mobilization of energies within the whole continent; relatively few or weak opposition thanks to the determination of all: ministries, institutions, students
- **ü** 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
- **ü** Greater European mobility made possible thanks to the generalization of ECTS
- Promotion of quality assurance in European higher education institutions and at national levels



## Bologna process (5)

#### Shortcomings

- With the implementation at institutional and disciplinary levels vary significantly
- Wany countries entered late into the process (or started late) so that they will hardly meet the deadline
- **u** 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



## Bologna process (6)

- 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

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## Lisbon strategy (1)

- 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:
  - **ü** Improve the quality and effectiveness of EU education and training
  - **ü** Ensure that these systems are accessible to all and promote LLL
  - Internationalize education and training
  - u Increase institutional funding by setting national benchmarks: 2% public spending on education and 3% on research
  - **ü** Enhance the impact of research funding
  - Push to increase institutional autonomy and improve institutional governance



## Lisbon strategy (2)

#### 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

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## 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?

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#### National initiatives

- Some countries are mainly working on structural measures as for example:
  - **ü** 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....)
  - **ü** 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)
  - **ü** 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)
  - **ü** Graduate schools to promote young scientists and researchers
  - ü Clusters of excellence to promote cutting-edge research
  - ii Institutional strategies to promote top-level research



## German excellence initiative (2)

- 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
  - **ü** the committees set up by the Research and Science councils
  - **ü** the 17 Federal and State Ministers responsible for science and research



## German excellence initiative (3)

- Impact
  - **ü** Significant interest
  - Awareness of the necessity to have a more differentiated and competitive system
  - **ü** Large mobilization to propose new solutions
  - **ü** Too early to evaluate: probable boost of the university system and prolongation for another 5 years

#### Impact of the Excellence Initiative



- 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.)



## France (2)

#### 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.



## France (3)

#### 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):
  - **ü** total control of budget
  - ü responsibility for hiring/promotion, salaries and bonuses
  - **ü** smaller governing boards (including external stakeholders)
  - **ü** creation of a foundation
  - **ü** ownership of buildings



## Portugal (1)

#### 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.:
  - u 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
  - **ü** 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



#### Portugal (2)

#### 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



## Quality assurance (1)

- Institutional level: Internal quality procedures are developing rapidly
- European level:
  - **ü** European Standards and Guidelines (ESG)
  - **ü** European Register of Quality Agencies (EQAR)
  - **ü** European QA Forum
  - Wew 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:
  - **ü** 9 out of 36 agencies made only small adjustments
  - ü 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:
  - Will More autonomy through changing legal frameworks
  - Strengthened executive leaders, governing boards and administrative staff/processes; weakened and smaller consultative bodies
  - ii Increased importance of institution-wide strategy
  - Uncreased 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



## Conclusion (4)

#### 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