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The German Higher Education and Research System and Recent Developments

DIES Information Visit: Internationalisation of Universities Bonn, 3 December 2013 Thomas Böhm, Bernhard Lippert



The German Higher Education and Research System — Some Basic Facts and Figures **German Rectors' Conference** (**HRK**): The voluntary association of state and state-recognized universities and other higher education institutions in Germany.

The HRK currently has 268 member institutions which account for 94 per cent of students in Germany.



#### **Types of Higher Education Institutions**

- 111 Universities and Technical Universities (incl. Teacher Training Colleges, Colleges of Theology, ...)
- 223 Universities of Applied Sciences ("Fachhochschulen")
- 57 Colleges of Art and Music

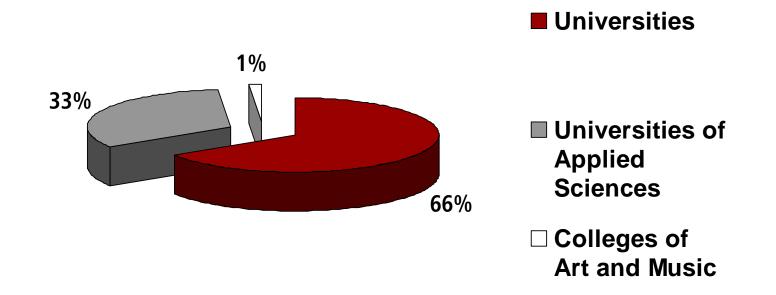
All together **391 higher education institutions** (predominantly state institutions; few private universities, usually with limited range of subjects)

Source: Higher Education Compass 2013

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The German Higher Education System

# Higher Education Institutions in Germanyaccording to Student Numbers2.6 mio students in total (as per WS 2013/2014)



Source: Federal Statistical Office

#### The German Higher Education and Science System

### Legal Framework: Federal government and State governments



#### **Funding for Higher Education and Research**

#### **Funding for Higher Education**

#### ■ Core Public Funding: 23.3 bn €

18.7 bn € federal states

2.6 bn € federal government

- Core Funding per Student: 7,310 €
- Third Party Funding: 4.9 bn €

(private sponsoring, industry, tuition fee, EU programs etc.)

- Increasing student numbers expected for the coming years → some additional funding through the "Higher Education Pact I + II" of federal and state governments (2011-2015: ca. 7 bn €, 2011-2018: additional 1.2-1.5 bn €)
- "Quality Initiative in Teaching": 2011-2020 2 bn €



## On the Way to Autonomous Higher Education Institutions

#### **Changing Legal Framework Increases Autonomy**

Management by objectives between state and university and within universities – between university leadership and faculties – with regard to

- introduction and/or abolishment of degree programmes
- admission of students
- appointment of professors
- salary of professors and academic staff
- management of university property
- organisational processes within the institution

#### **Changing Funding Structures Increase Accountability**

- Introduction of lump-sum (yearly) budgets
- Introduction of performance-based allocation mechanisms
  - between ministries and universities
  - within universities, between faculties
  - Introduction of performance criteria for the salary of professors
  - Increase of private contributions to higher education funding, e.g. tuition fees, private third-party funding for research, contribution of foundations, etc.

**Towards a Quality Culture in Higher Education** 

#### From State Control to Science-Based Quality **Assurance Systems**

**Accreditation** assures basic quality standards of study programmes.

**Evaluation** aims at promoting transparency, improving quality and benchmarking.

#### **Future challenges:**

- from quality assurance (minimal standards) to quality enhancement
- from input to outcome orientation
- Programme accreditation and system accreditation as alternative options for HEI
- Increasing acceptance problems (high workload and costs of accreditation)
- HRK's long-term goal is an improvement-driven Institutional Quality Audit



**Towards a Quality Culture in Higher Education** 

#### **The Two-Level Accreditation System**

#### **Accreditation Council**

HEI (4), state (4), students (2), professional practise (5), intern.experts (2)

Defining procedural requirements (ECTS, Modularisation, DS etc.)



#### **Accreditation Agencies**

Independent, with or without subject specification (10)

**Conducting accreditation procedures** 

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A Diversifying Higher Education Landscape

#### **University Profiles are Changing**

Increasing **diversity** of the German HE system as result of

- international trends (higher participation rates, development of (quasi-)markets in HE, Bologna Process, internationalisation, etc.)
- changes in the national higher education policy framework (financial pressures to public budgets, increasing autonomy and accountability of institutions, introduction of science-based quality assurance mechanisms and rankings: CHE Ranking, DFG Research Ranking, Excellence Initiative, Rating of the Science Council, etc.)



## The European Dimension: From Bologna to Bucharest

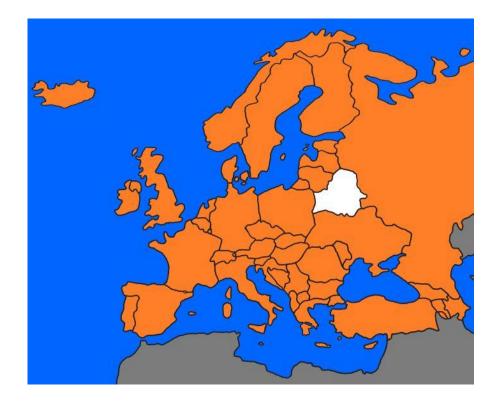
#### The European Dimension: From Bologna to Bucharest

#### The European Higher Education and Research Area

#### **The Bologna Declaration**

- A system of easily readable and comparable degrees
- A system with two main cycles
- A system of credits
- Promotion of mobility
- Promotion of European co-operation in quality assurance
- Promotion of the European dimension in higher education

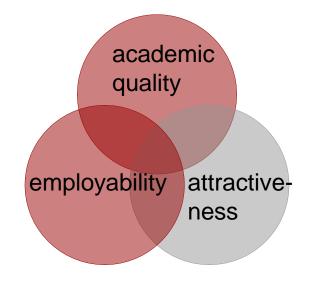




#### The European Dimension: From Bologna to Bucharest

#### Which Goals are the Driving Forces for Universities?

- 1. Enhancing academic quality
- 2. Preparing graduates for the European labour market
- 3. Competitiveness and attractiveness of the <u>national</u> systems of higher education



#### The European Dimension: From Bologna to Bucharest

## What Does "Bologna" Mean for University Faculties in Germany?

- Reform of degree programmes
- Change of paradigm: from teacher to learner perspective (modularisation of study programmes, calculation of overall student workload, focus on learning outcomes and competencies)
- Introduction of ECTS and Diploma Supplement
- Introduction of quality assurance procedures
- Employability of graduates as an explicit goal
- Strengthening of the European dimension in teaching, learning and research



## The Reform of Undergraduate Education

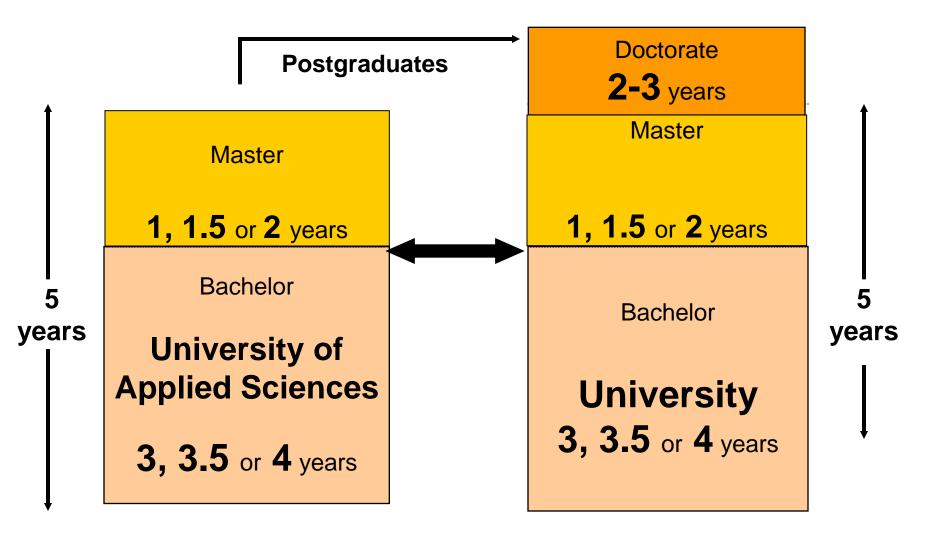
#### The Reform of Undergraduate Education

#### **Traditional Degree Structure : Magister and Diplom**

#### Doctorate 2-3 years **University of** University **Applied Sciences Diplom/Magister** Diplom (FH) 4 years 4.5 years (average) (average)

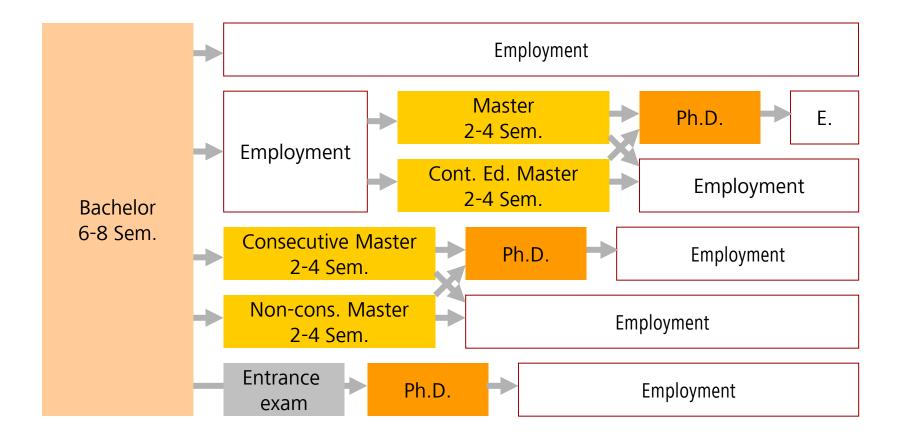
#### The Reform of Undergraduate Education

#### **New Degree Structure: Bachelor and Master**



#### The Reform of Undergraduate Education

#### The Potential of the Two-Tier System: A Wide Range of Study Opportunities





## Internationalising Higher Education Institutions

#### A More Strategic Approach to Internationalisation

- Increasing mobility of students and researchers
- Increasing international collaboration in research and technology transfer
- Shift from traditional to more structured forms of international collaboration (integrated study semesters abroad, joint degrees)
- Increase in the establishment of offshore campusses and bi- or multinational higher education institutions
- National and international strategic alliances

#### The Internationalisation of German Universities – Strengths

- Germany is a "global player" in transnational education.
- The number of international students has risen from 175,000 in 2000 to 245,000 in 2010 (rise by roughly 40 per cent; 11.5% of all students).
- At the same time, the number of mobile German students has risen from 46,000 in 1998 to 103,000 in 2008 (rise by roughly 120 per cent within a decade).
- Most German universities have developed or are currently in the process of formulating internationalisation strategies.
- Political support for internationalisation is high, especially at the federal level (policy support and financial incentives).

#### The Internationalisation of German Universities

#### The Internationalisation of German Universities – Challenges

- Institutional internationalisation strategies have to be better linked with the overall profile and strategy of the institution.
   Coordination and communication between all groups within the university have to be enhanced.
- Transparent and effective structures and processes of internationalisation have to be established (including incentives).
- Study programmes have to be further internationalised (not only language, but also contents, "mobility windows", double degrees, summer schools, etc.)
- Recognition is a key issue.

#### The Internationalisation of German Universities – Challenges

- International students have to be further supported in order to successfully complete their studies in Germany ("National Code of Conduct on Foreign Students at German Universities").
- The percentage of international staff at German universities has to be substantially increased (recruiting, administration, career paths).

#### Job Posibilities and Legal Status

At least 5 % of study places are guaranteed for third country students

Implementation of the EU Directive on highly qualified employment (2009/50/EC) in Germany in August 2012

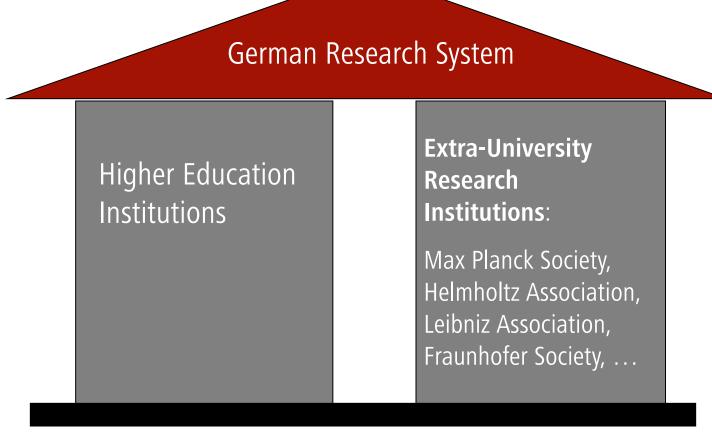
- 120 days a year during study
- 18 month search for an appropriate job after graduation
- Unlimited access to the labour market during this period
- Settlement permit after a period of only two years



### German Research System

The German Higher Education and Research System

## University Research and Extra-University Research as the Two Pillars of the German Research System



The German Higher Education and Research System

#### Universities as the Core of the Research System

- Universities are at the "heart" of our research systems, supporting excellence in individuals and in structures.
- Universities in Germany spend more then 11 bn € yearly on R&D,
  1.4 bn € of which are from industry.
- Research funding largely provided by federal government, e.g. through the German Science Foundation (DFG), but also by industry; increasing amount of competitive grants (e.g. "Excellence Initiative")

#### **Doctoral Training as a Core Element of Research**

- Preparing graduates for (national and international) executive positions in industry and academia
- Enhancing academic quality: Building up centers of excellence and supporting of excellent students
- Becoming more competitive and attractive: Making German universities attractive places for study and research
- Contributing to scientific progress and economic prosperity



#### **The European Dimension**

The European Framework Programme for Reserach and Innovation Horizon 2020" (2014-2020)

EU-"Structural Funds"

Student Mobility: "Erasmus plus" is accepted

"European Research Area"



- New map and interactive data base to search for "research priorities" of German universities
- 338 entries of 76 universities



- Information is provided by the individual institutions voluntarily
- HRK is administrating the research map

Criteria for being listed

At least 25 professors collaborate
 in a specific field of research which
 constitutes a distinctive part of the respective university's institutional profile

Eligibility for inclusion is restricted to HRK member institutions

Maximum listed priorities per university is eight

#### Search

- Regional criteria: Choose location/city on the map or on the list
- Research areas (14) like: agriculture, biology, chemistry etc.
- Key terms: absorbable implants, academic achievement, accelerated cosmic expansion, acceleration, accelerator and detector design, accelerator Technology etc.

#### http://www.hrk.de/activities/research-map/



# Supporting Excellence in Research and Teaching

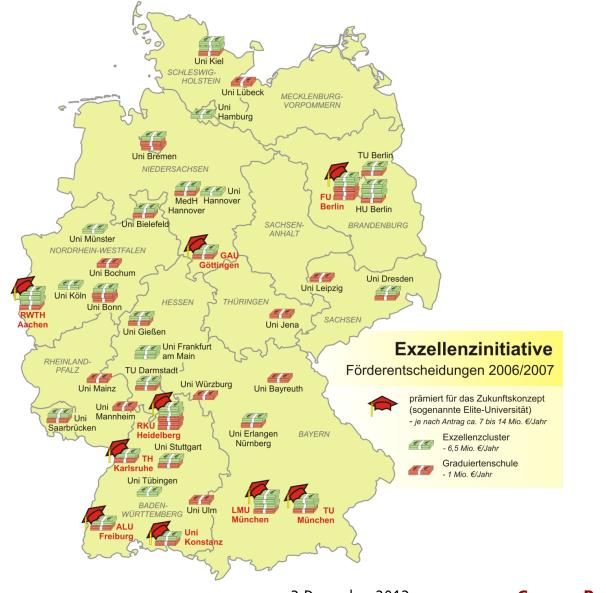
#### The Excellence Initiative

- Aims to promote top-level research and to improve the quality of German universities and research institutions in general
- Three lines of funding:

o Graduate schools to promote young researchers o Excellence clusters to promote world-class research o Plans for advancing top-level university research

- Total of 1.9 bn € in additional funding between 2006 and 2011 (75% Federal government and 25 % state governments)
- For the next round (2012-2017) 2.7 bn €

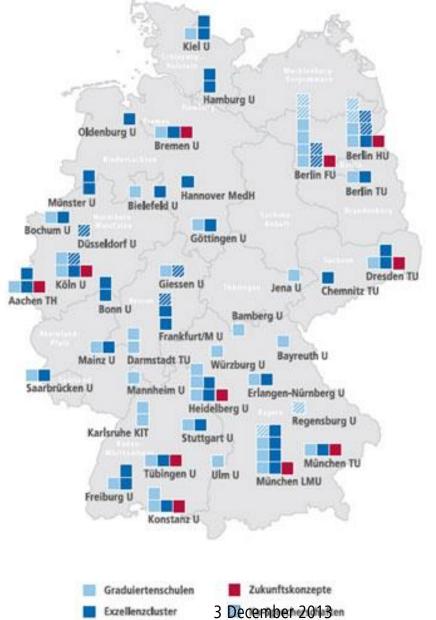
#### The Excellence Initiative: Results of the First Two Rounds



Source: Wikipedia/Lencer

#### 3 December 2013

#### The Excellence Initiative: Results after Final Round 2012







Thank you! Thomas Böhm, Head of Section, Africa and Middle East boehm@hrk.de **Bernhard Lippert, Head of Department, Research in Germany** <u>lippert@hrk.de</u> www.hrk.de