

The German Higher Education and Research System — Some Basic Facts and Figures

The German Rectors' Conference

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.



HRK German Rectors' Conference
The Voice of the Universities

The German Higher Education System

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

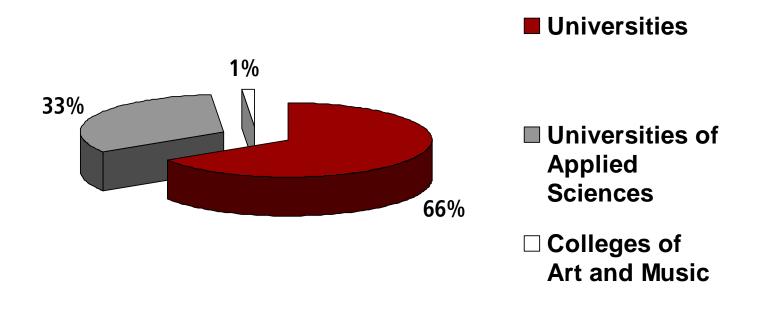
All together **391 higher education institutions** (predominantly state institutions; few private universities, usually with limited range of subjects)

Source: Higher Education Compass 2013

The German Higher Education System

Higher Education Institutions in Germany according to Student Numbers

2.6 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

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

On the Way to Autonomous Higher Education Institutions

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, Monitoring, Regulating fair competition

Accreditation Agencies

Independent, with or without subject specification (10)

Conducting accreditation procedures

A Diversifying Higher Education Landscape

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

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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

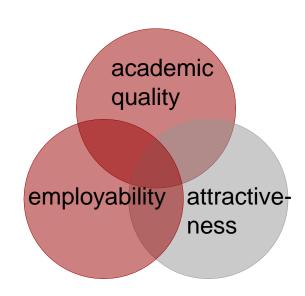


→ currently 47 Signatories

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

University of Applied Sciences

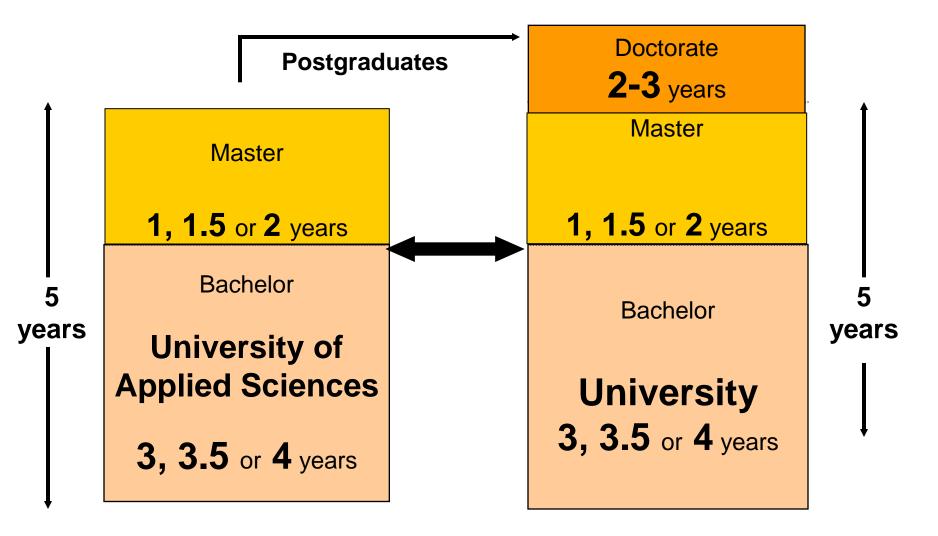
Diplom (FH)

4 years (average)

Doctorate **2-3** years University Diplom/Magister **4.5** years (average)

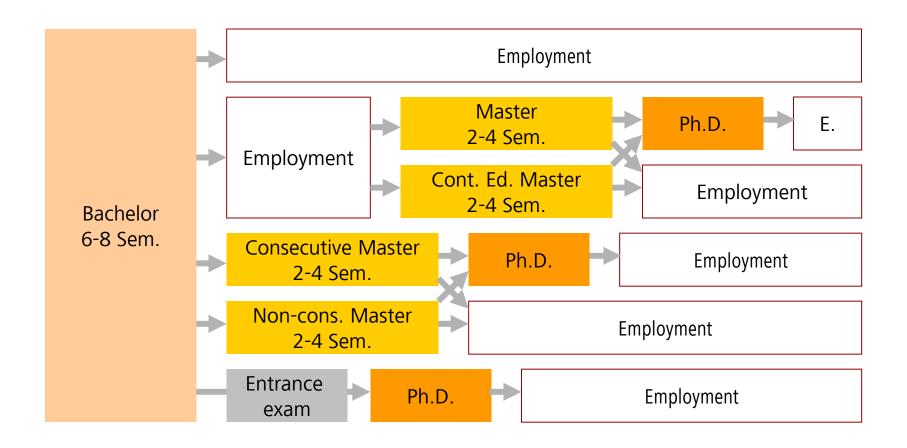
The Reform of Undergraduate Education

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 – 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).

International Students in Germany

Job Posibilities and Legal Status

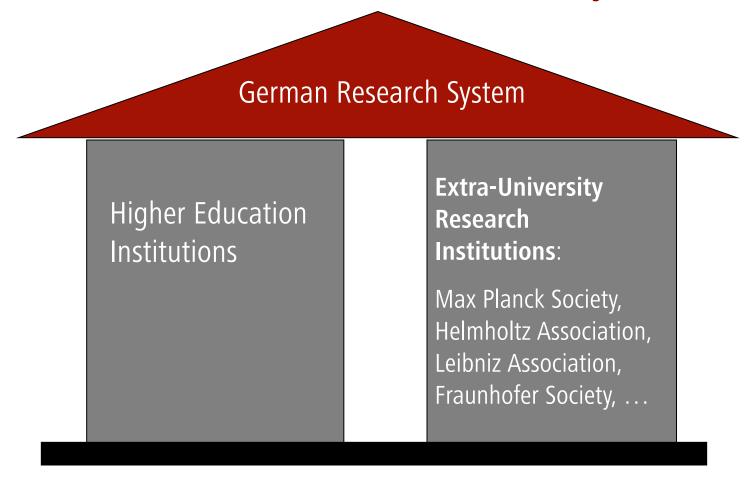
At least 5 % of study places are guaranteed for third country students

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

University Research and Extra-University Research as the Two Pillars of the German 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")

New Structures in Postgraduate Education

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"

Research Map

Research Map

- 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

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

Research Map

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

Supporting Excellence in Research: The Excellence Initiative

The Excellence Initiative

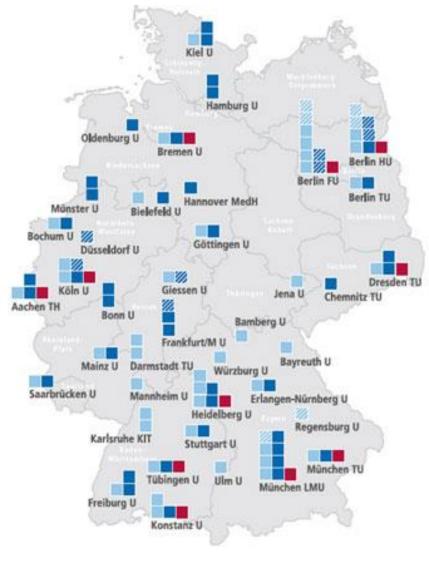
- Aims to promote top-level research and to improve the quality of German universities and research institutions in general
- Three lines of funding:
 - o Graduate schools to promote young researchers
 - o Excellence clusters to promote world-class research
 - o Plans for advancing top-level university 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

The Excellence Initiative: Results after Final Round 2012



Source: DFG

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