Research funding and systems

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What research? - What? Research? - Why Me?

Source: Myfreewallpapers.net

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Thales of Miletus was a pre-Socratic Greek philosopher from Miletus in Asia Minor, 624 BC, and one of the Seven Sages of Greece.

In "Bart's Comet", Bart Simpson accidentally discovers a comet that threatens to destroy Springfield (February 5, 1995)

Scrooge McDuck, rolling in money

Presentation Outline

A. The Research Landscape and Structure

B. The Role of Third Party Funding for Universities

C. European Models of Funding

D. Examples of good practise

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- **Research at Institutions of Higher Education under DIKTI**

(competitive, short term research funding vs. basic (long term) research needs // parallel structures within the public system vs. joined forces)

- **Research at Institutions of Higher Education under the Ministry of Religion**

(research in religious studies vs. interdisciplinary and broad range research // parallel structures within the public system vs. joined forces)

- **Research at Non-University Research Facilities**

("our" researchers vs. "them and us" // applied research only - with 0,09 % of GDP vs. connectedness of basic and applied research, suitably endowed)

- **Industry-Based Research (?)**

A. Prepare for Life-Long Learning and Flexible Partnerships!

- **From vertical to horizontal approaches …**
- **From research OR teaching to research AND teaching …**

•DIKTI and RISTEK	•Primary and Secondary	•Vocational	•Pasca-sarjana	•Under-graduate Studies (S1)	•…

basic and applied research

interdisciplinary approaches

cross sectoral funding

...
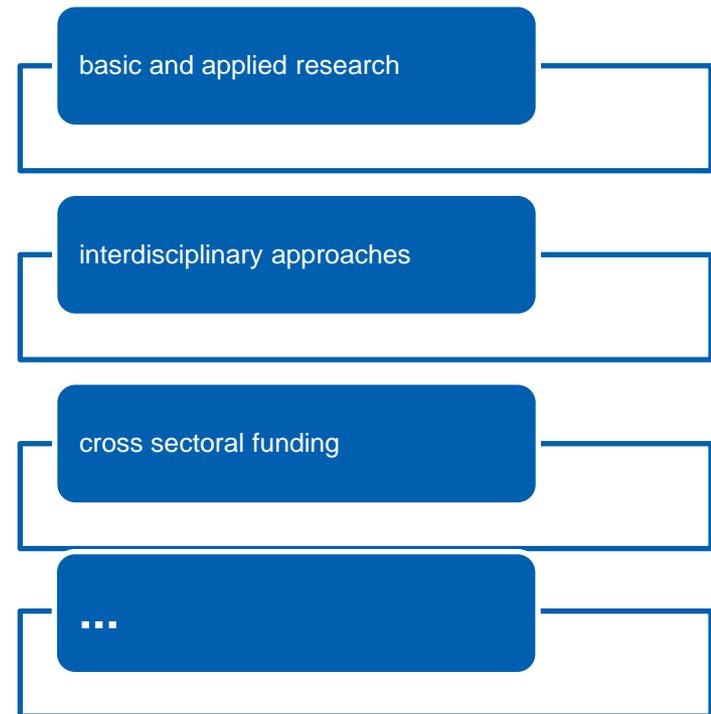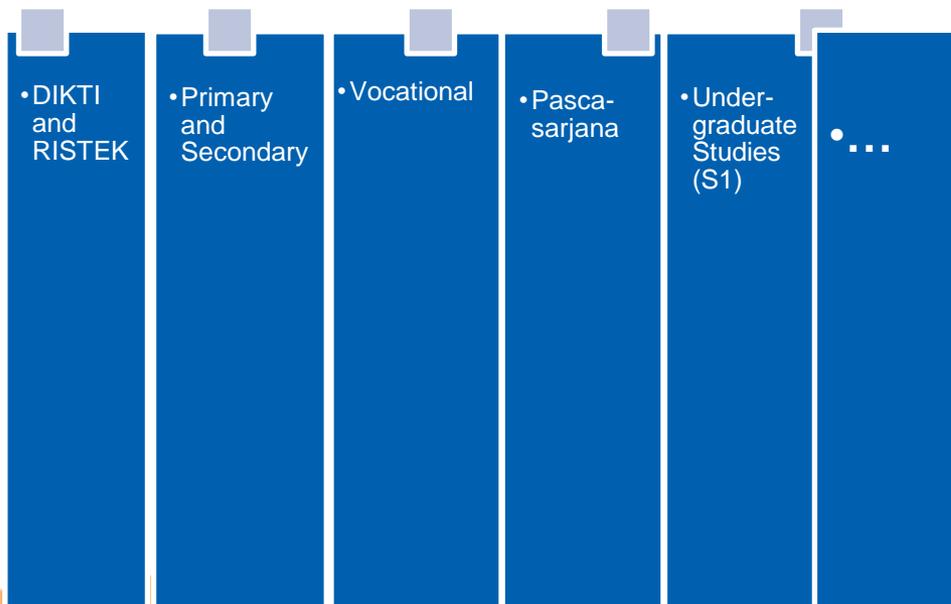
A. Cross-sectoral Partnership Program

Science meets business

- **University-Business Partnerships between HE institutions and business partners in Germany and developing countries**

- **What is the aim?**

  - Intensify the practical relevance of existing study courses

  - Improve the relationship between universities and business partners

  - Teach soft skills required in professional life

  - Develop commercial links between German business and the partner countries

- **Which activities are funded?**

  - Entrepreneurs hold seminars or design teaching modules, train the trainer courses for university lecturers

  - "Business days" at universities, Student research projects at partner universities

  - Career fairs, work experience and internships for students

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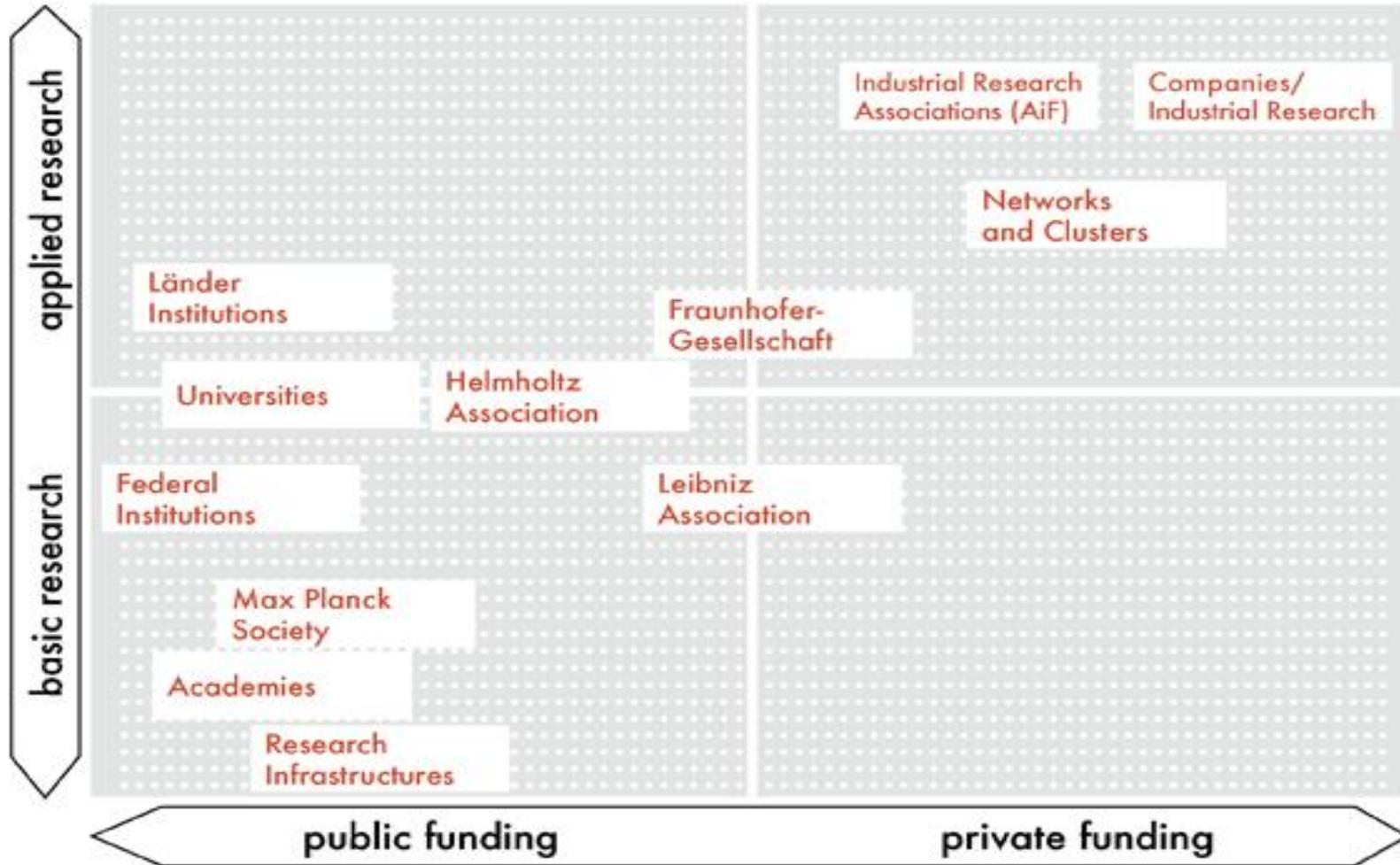
B. Institutional Funding of HEI vs. Third Party Funding (in billion Euro). An Increasingly Dominant Factor The German Example
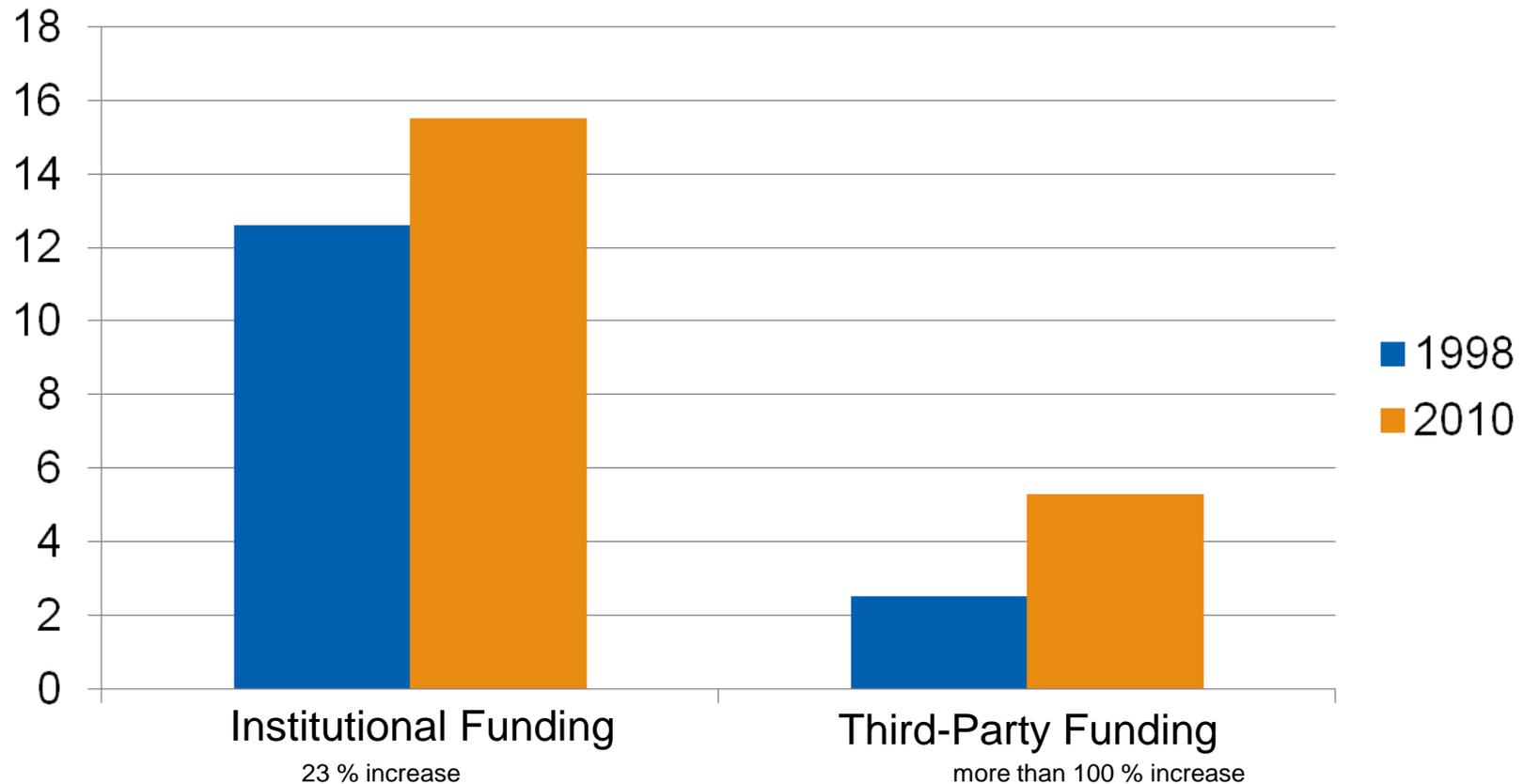
B. Institutional Funding of HEI vs. Third Party Funding (in %) The German Example

Budget 1998

Budget 2010

- Instit. Funding (83,4%)
- 3rd Party Funding (16,6%)

- Institutional Funding (74,5%)
- 3rd Party Funding (25,5%)

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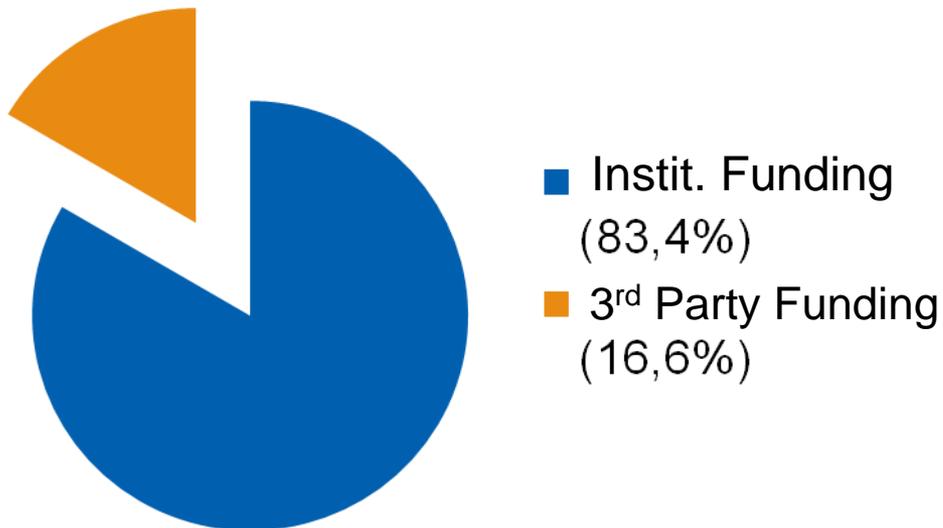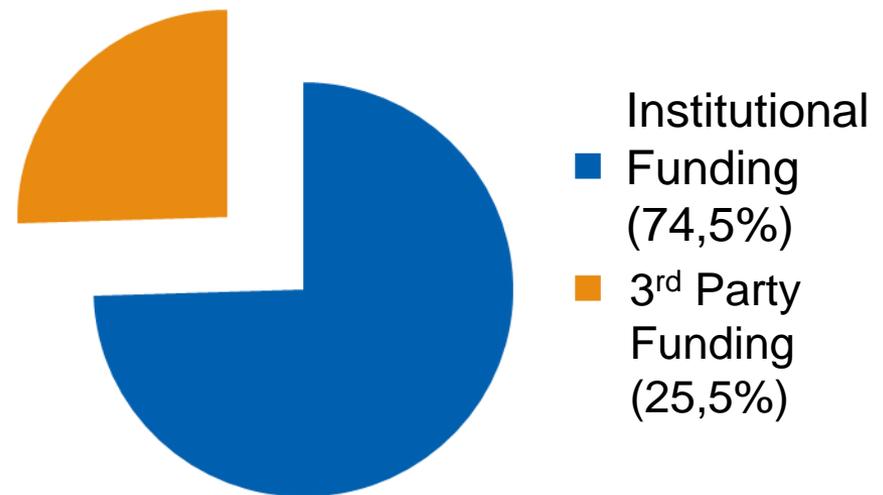
B. Number of HEI that Received Third Party Funding The German Example
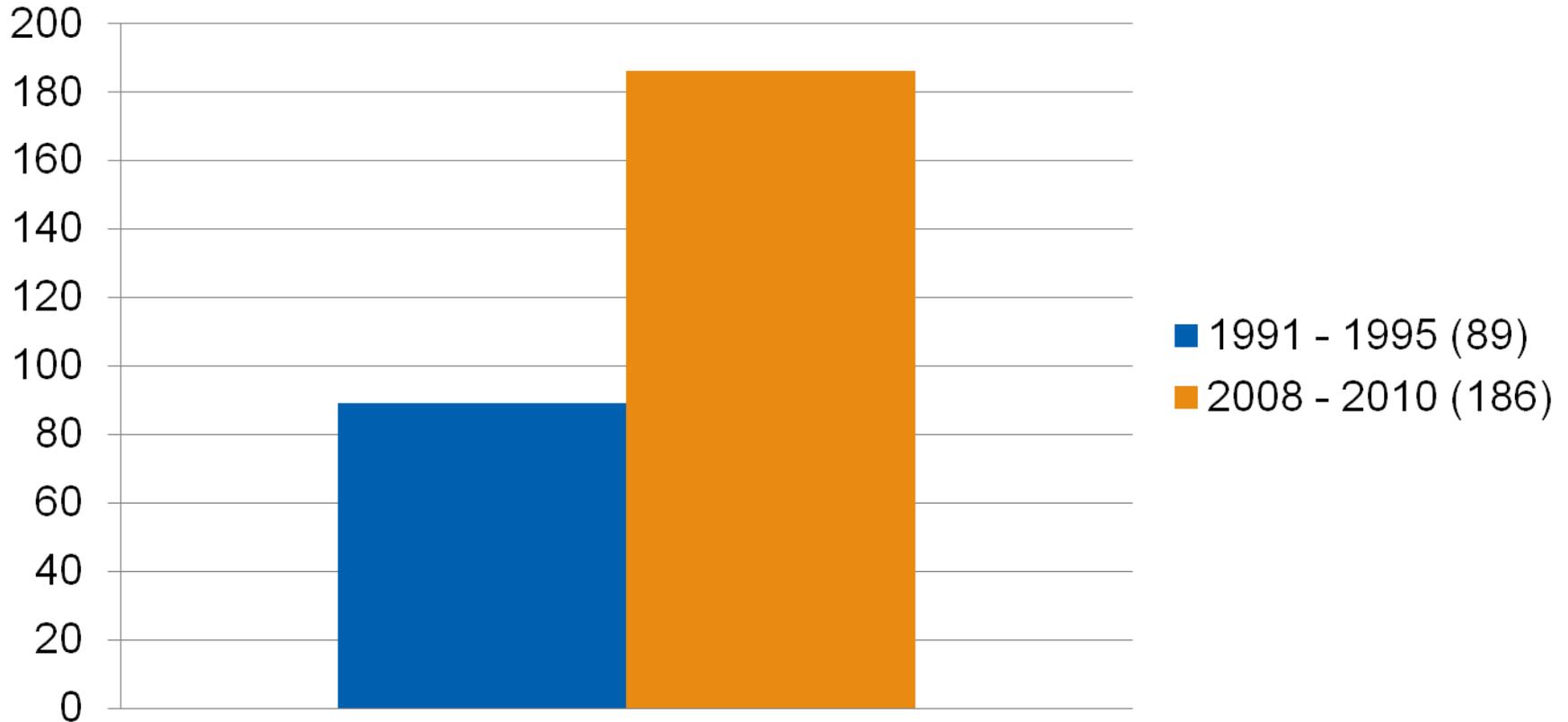
■	1991 - 1995 (89)
■	2008 - 2010 (186)

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■ Engineering (70%)
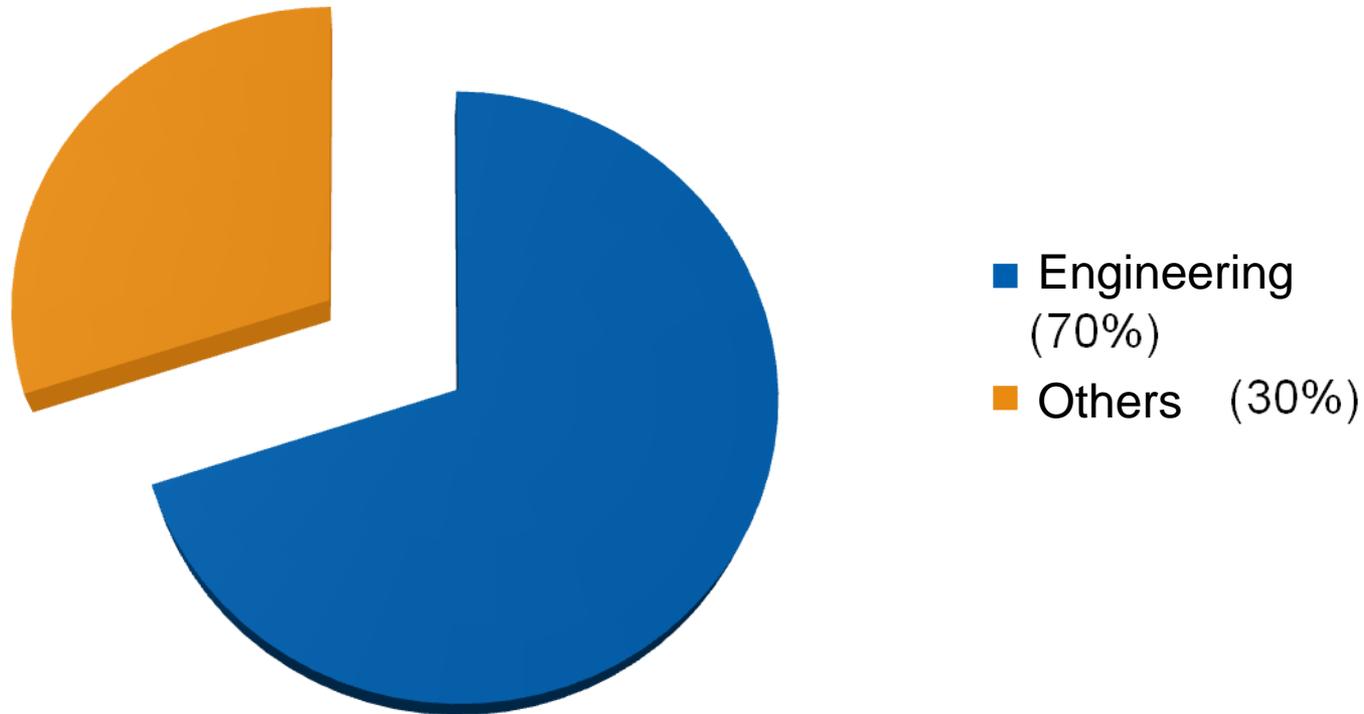
■ Others (30%)

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Proportion Third party Funding in %
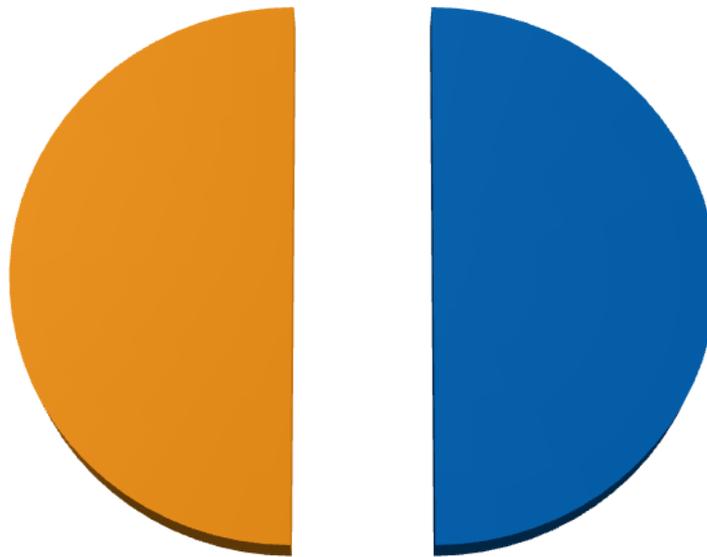
- ■ Humanities and Social Sciences (50% +)
- ■ Others (50% -)

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2008 - 2010

FU Berlin (251 bn Euro)

LMU München (264 bn Euro)

RWTH Aachen (278 bn Euro)

■ 2008 - 2010

230   240   250   260   270   280   290
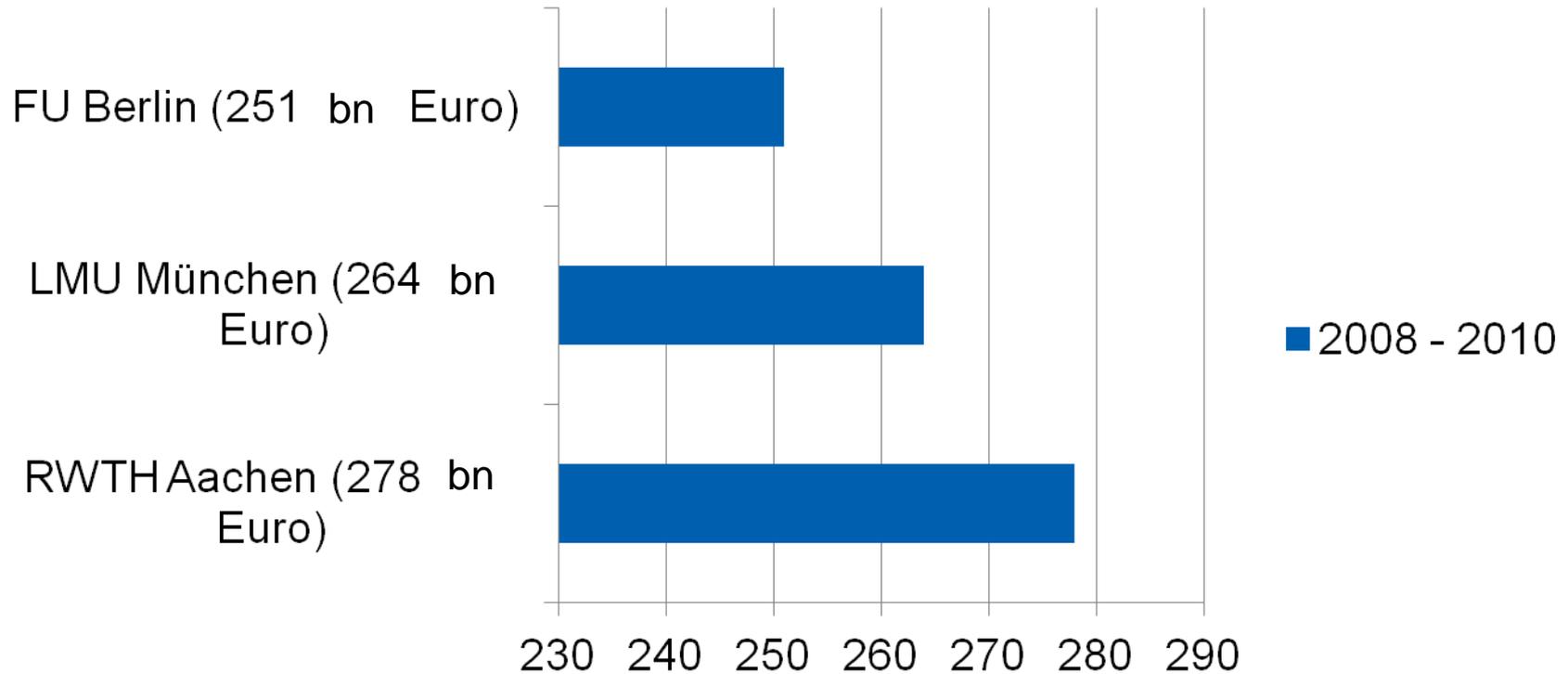
The average top 200 universities (THE, 1.10.14) have a total research income of $ 229,109 per academic year (compared with $ 168,739 for a top 400 university).

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The German Research Funding (2009)

- **Industry: €44.3 bn**

- **Government: €19.9 bn**

  - Federal government: 53%

  - State governments: 47%

- **Others: €0.2 bn**

- **Foreign countries: €2.6 bn**

In total: €67.0 bn
535,000 Research and Development staff

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Three funding lines:

1. **Graduate Schools to promote young academics**

2. **Clusters of Excellence to promote top-level research**

3. **Institutional Strategies to promote top-level university research**

■ First Phase 2006-2012:

– 39 graduate schools

– 37 clusters of excellence

– 9 institutional strategies

(Source: DFG)

■ Second Phase 2012-2017:

– 45 graduate schools

– 43 clusters of excellence

– 11 institutional strategies

C. Commercial Returns for Strategic Funding (the German example)

High Tech Strategy, 2012: Initiative launched by the federal government of Germany to encourage the development of lead markets, enhance cooperation between science and industry, and improve framework conditions for innovations: Since Germany introduced national research priorities – climate and energy; health and nutrition; transport, safety and communication – research and development investment by industry increased 20 per cent.

Source: http://www.hightech-strategie.de/en/index.php

Read more:
http://www.smh.com.au/federal-politics/political-news/commercial-returns-to-fore-in-proposed-university-research-overhaul-20141028-11d44d.html#ixzz3l0SaWw4i

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HORIZON 2020

EU Framework Programme for Research and Innovation 2014-2020 combines 3 individual projects / initiatives*

Total budget: 80 billion euros

Three priorities:

Excellent research

Industrial leadership

Societal challenges

* 7th Research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)

(Source: European Commission)

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C. Marie Sklodowska-Curie Innovative Training Networks

European **Joint Doctorates** (EJD)

EJDs have the objective of promoting international, intersectoral and multi/inter-disciplinary collaboration in doctoral-level training in Europe through the creation of joint doctoral programmes, leading to the delivery of joint, double or multiple doctoral degrees (*).

They are composed of at least three beneficiaries established in different Member States or Associated Countries that are entitled to deliver doctoral degrees. Above this minimum, the participation of any other organisation from the same or other countries (worldwide) is possible under the conditions provided by the Horizon 2020 Rules for Participation.

Each recruited researcher must be:

selected, supervised, monitored and assessed through a joint governance structure;

be enrolled on a joint doctoral programme

undertake transnational mobility

Note that EJD proposals will be ranked in a separate panel with a dedicated budget of €28 million.

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D. Three Good Practice Examples in RI

„ A key point is that research universities around the world are part of an active community of institutions that share values, foci, and mission", Philip G. Altbach

## 1. University-Driven Research:
cooperation, relevance, **commitment**, quality (Frbg–UGM-UNHAS)

2. Ministery-Driven Research
mission, **focus**, flexibility (Biodiversity & Health)

3. Capacity Building
 Intra-regional participation, local and European trainers, co-opted professional and political bodies from ASEAN region
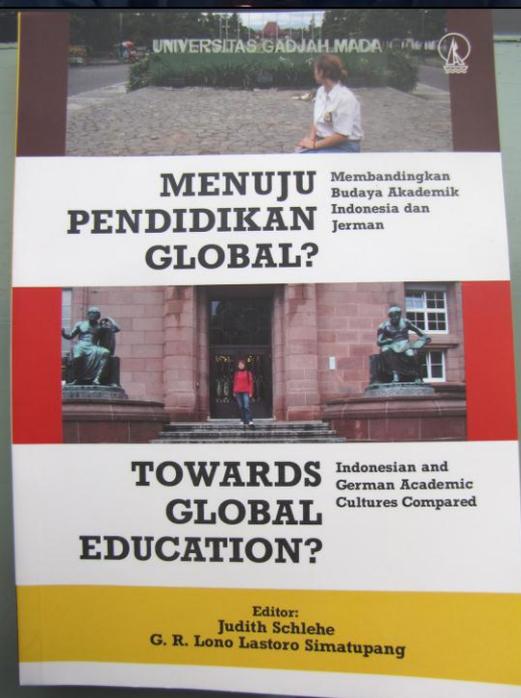
Jointly learning how to do research
3 universities: Freiburg, UHGM, UNHAS
2 subjects, 1 publicat.: Intl. Rel, Anthrop.
Internationally and academically
mixed research teams: German-Indonesian
BA, MA, PhD, profs.
Two-way exchange: Germany ⟷ Indonesia

UNIVERSITAS GADJAH MADA

MENUJU PENDIDIKAN GLOBAL? Membandingkan Budaya Akademik Indonesia dan Jerman

TOWARDS GLOBAL EDUCATION? Indonesian and German Academic Cultures Compared

Editor:
Judith Schlehe
G. R. Lono Lastoro Simatupang

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Biodiversity & Health / Bilateral research scheme (BMBF and RISTEK)

1. Universities and outside university research institutions with joined research projects
2. Scholarships for Indonesian and German PhD students to be included in the teams and projects as young researchers

(Courtesy of University Ma Chung) Lab in Ma Chung Uni, Malang, Prof. Dr. Leenawaty (centre)

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Training Courses:
Dialogue on Innovative Higher Education Strategies (DIES) a joint venture with the German Rectors' Conference (HRK)

Dialogue

… fosters the exchange on topics of higher education management and quality assurance

- DIES Conferences
- DIES Visits
- DIES Seminars

Training Courses

… give advice on improving management strategies and structures of universities

- UNILEAD
- International Deans' Course
- National Multiplication Trainings
- Proposal Writing
- ASEAN QA
- Management of Internationalization

Partnerships

… aim at encouraging institutional partnership and at improving the management of university structures as well as resources at the institutional level

Projects

… support developing countries in the establishment of transnational quality assurance systems

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On course for Active Collaboration!

- **Restructured ministries**

- **International Programs and Partnerships**

- **Availability of Funding**

- **Market Chances**: A significantly growing number of internationally mobile students and scientists

- **Prepared resources:** Well-educated academics and well established academic collaboration tradition

- **Trust:** Enthusiastic alumni and partners

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