

Philipps



Universität
Marburg

Universities and their Role in German Research Landscape

DIES-Seminar „German-Iranian Cooperation in Research“
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The German Research Landscape

Facts | Structures | Financing

Facts and Figures (2015)



More than 1,000 publicly funded research institutions



Research expenditures: 88,8 bn euros = 2.98% GDP



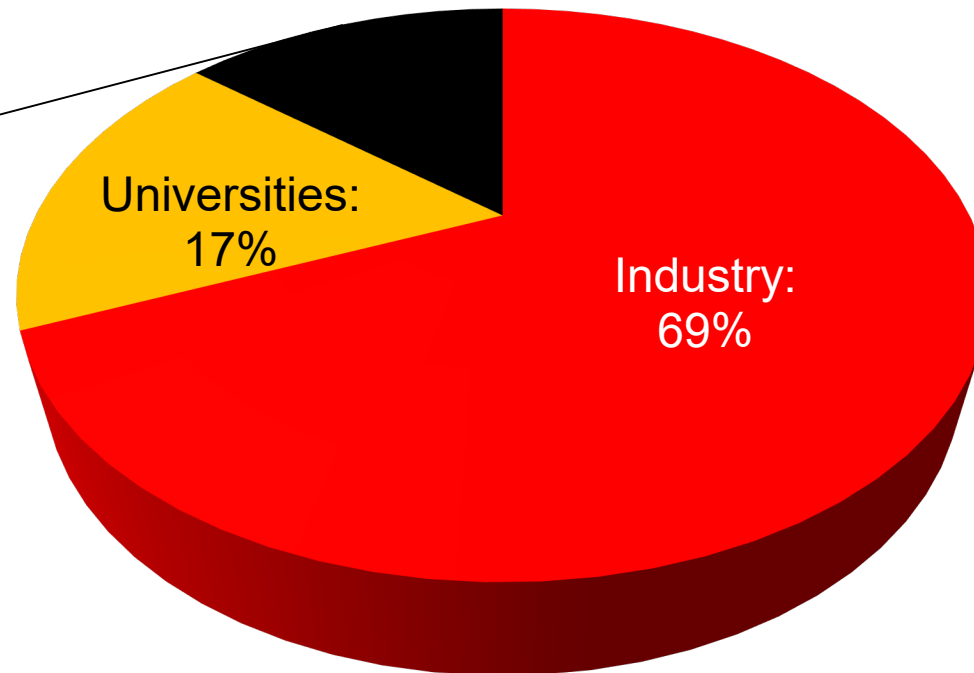
652,000 people in the R&D sector



Bilateral, European and multilateral cooperation with more than 155 countries

Research expenditures by sector

Non-profit
public and
private
institutions:
14%

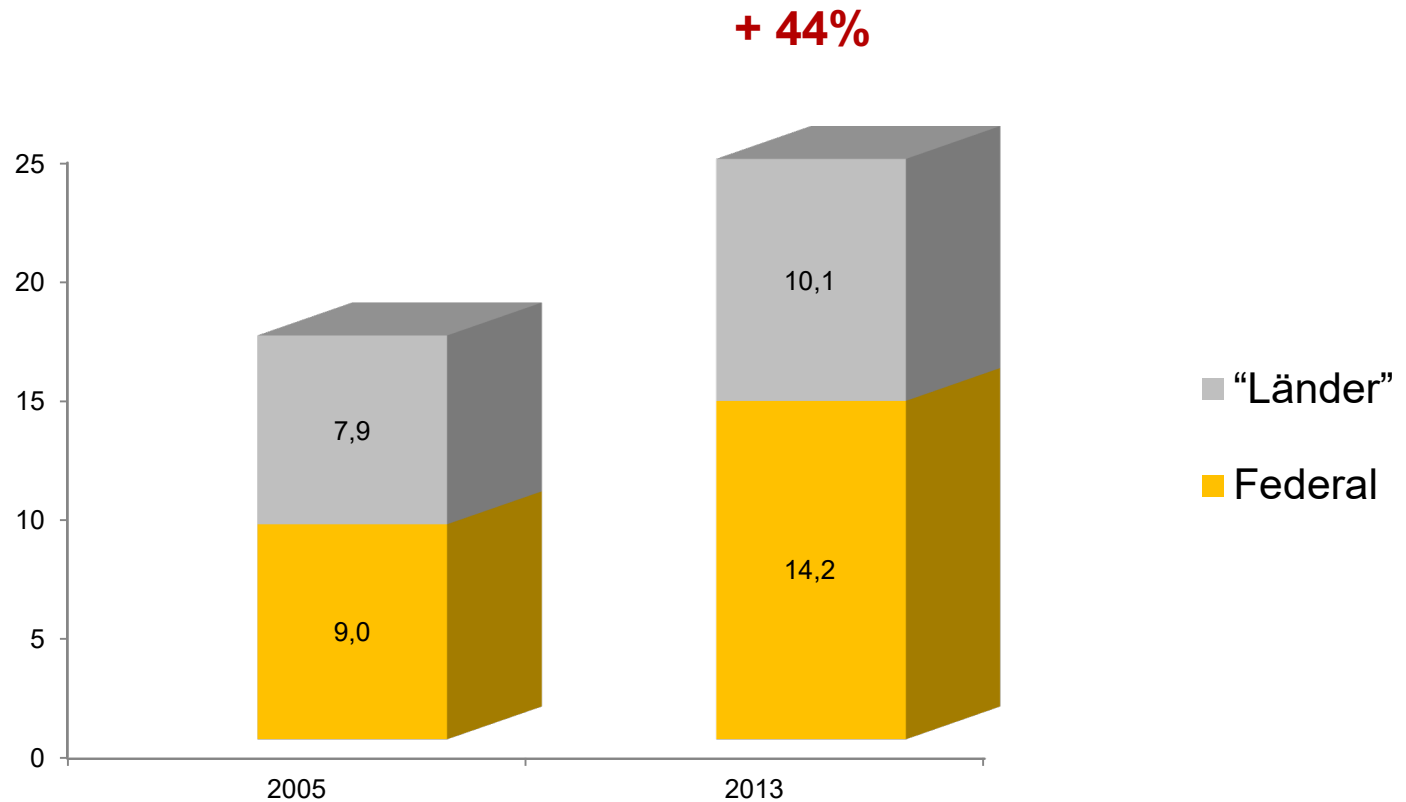


Total: € 88,8 bn.

Research expenditures by sector in 2015 (%)

Source: Federal Statistical Office

Publicly financed research expenditures



Publicly financed research expenditures in Germany (in bn euros)

Source: Federal Statistical Office

Pillars of the German research sector

Non-university
research institutes



Universities (HEIs)



Industrial research



Universities

Funding

- Federal states (Länder)
- German Research Foundation (DFG)
- Federal Ministry of Education and Research (BMBF)
- Other Federal Ministries
- European Commission
- Alexander von Humboldt-Stiftung (AvH)
- German Academic Exchange Service (DAAD)

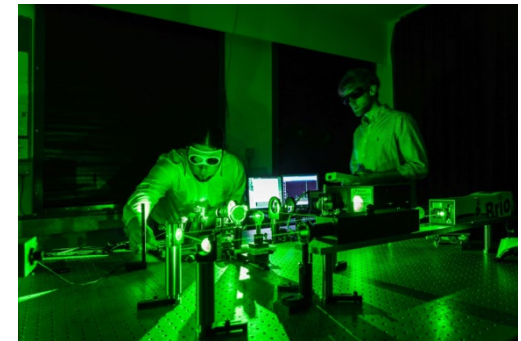
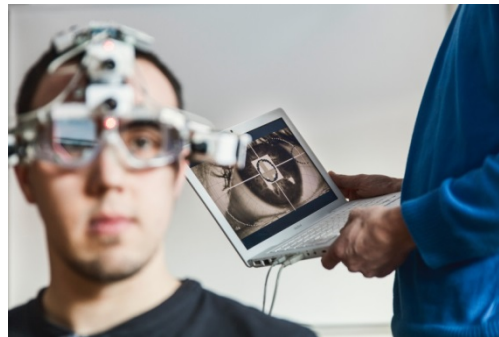


Partners

- Universities of Applied Sciences
- Max Planck Society
- Helmholtz Association
- Fraunhofer
- Leibniz Association
- Industry

Universities

- Foundation of tomorrow's science
- Based on the unity of research and teaching
- Generating knowledge and communicating new findings
- Providing all levels of academic education



Universities

- Research in all subjects and appropriate study programmes
- Academic education of physicians, pharmacists, judges and teachers
- Academic education in arts and music



Universities

- 105 universities
- Almost 250,000 international students and 29,000 international doctoral candidates
- Principle of uniting learning, instruction and research



Universities

	Universities	Universities of Applied Sciences
Programme levels	Bachelor Master Doctorate	Bachelor Master
Fields of study	all	Engineering (75 % of German engineers are educated at FH/HAW), business, social and health sciences
Degree programmes	theory-oriented, based on fundamental research, unity of teaching and research	Application-oriented, based on applied research; include a practical semester (internship)
Requirement for professorship	Doctorate/PhD <i>Habilitation</i>	Doctorate/PhD Min. three years industry experience
Average number of teaching lessons per week	8-10	18



Universities

Universities (HEI)

- Excellence Strategy
- Higher Education Pact



Non-University Research Institutions

- Pact for Research and Innovation



Higher Education Pact 2020



- Federal and “Länder” govts. = additional funding for needs-based study programmes
- 2016-2023: 760,033 additional spaces for beginning students
- 22% overhead allowances for research projects
- Quality Pact for Teaching

Excellence Strategy

Federal- and state-funded research programme

- Duration: starting 2017 (open ended)
- Total funding volume: from 2018 on annually 533 m euros
- Focus: university research activities
- Cooperation with research institutions, universities of applied sciences and companies



Excellence Strategy: Funding structures

Excellence Universities

- Permanent support for universities with 2-3 Clusters of Excellence



Clusters of Excellence

- Project funding for internationally competitive areas of research



Excellence Strategy versus Higher Education Pact

Excellence Strategy

Volume of funding: 533 million €

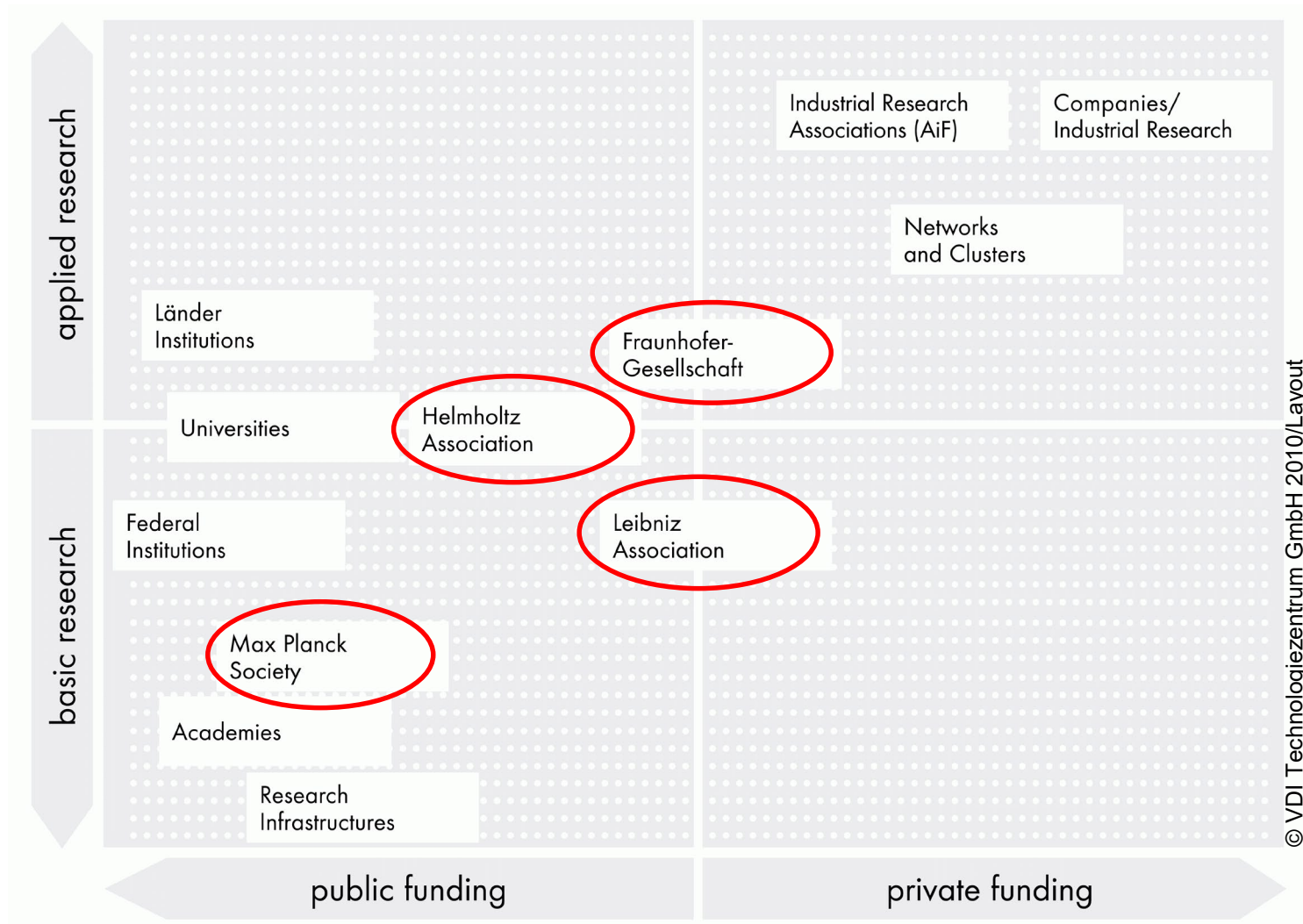
Recipients: universities and non-university research institutions

Higher Education Pact 2020

Volume of funding: 3.5 bn €
(2018)

Recipients: universities and universities of applied sciences
(state funded and private)

Non-university research institutions



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Adaptation: Frankfurter Societäts-Medien GmbH

The Big Four

Institution	Institutes	Budget	Researchers
Max Planck Society	84 institutes	2.3 bn euros	14,036
Helmholtz Association	18 research centres	4.4 bn euros	38,733 (staff in total)
Fraunhofer-Gesellschaft	69 institutes	2.1 bn euros	24,458 (staff in total)
Leibniz Association	88 institutes	1.8 bn euros	9,485

Universities

German Centres for Health Research (DZG)

German Cancer Consortium

German Centre for Cardiovascular Research

German Center for Diabetes Research

German Center for Infection Research (DZIF)

German Center for Lung Research (DZL)

German Center for Neurodegenerative Diseases



Deutsche Zentren der Gesundheitsforschung:

- Deutsches Konsortium für translationale Krebsforschung (DKTK)
- Deutsches Zentrum für Neurodegenerative Erkrankungen (DZNE)
- Deutsches Zentrum für Lungenforschung (DZL)
- Deutsches Zentrum für Herz-Kreislauf-Forschung (DZHK)
- Deutsches Zentrum für Diabetesforschung (DZD)
- Deutsches Zentrum für Infektionsforschung (DZIF)

Websites and databases

- <http://www.research-in-germany.org>
- <http://www.funding-guide.de>
- <http://www.euraxess.de>
- <http://www.research-explorer.de>
- <http://www.higher-education-compass.de>