The German Research Landscape

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The German Research Landscape

1. Facts and Figures

2. Research Funding: Programs for Researchers & Faculty
Facts and figures 2013

More than 1,000 publicly funded research institutions

Research expenditures: 81.5 bn euros = 2.88% GDP

603,861 people in the R&D sector

Bilateral, European and multilateral cooperation with more than 140 countries
Research expenditures by sector in 2013 (%)

Source: Federal Statistical Office
High-tech strategy

Fields of the future

Healthy living

Sustainable management and energy

Intelligent mobility

Innovative work environments

Civil security

Digital business and society
Excellence Initiative by German States ("Länder") & Federal Government

- 2006–2017 a total of € 4.6 billion will be invested to promote top-level research

- 45 graduate schools
- 43 clusters of excellence
- 11 institutional strategies to promote top-level research
International Researchers

Number of foreign researchers in Germany

Source: Wissenschaft Weltoffen
Pillars of the German research sector

Universities (HEIs)

Non-university research institutes

Industrial research
– 65% of all research funding in Germany comes from business and industry
– Innovation-driving sectors: pharmaceuticals, electronics, automotive engineering, electrical engineering
– Technology transfer – Cluster formation, networks
Universities

– 428 Higher Education Institutions (HEIs) – 148 authorized to confer doctorates
– 22,100 international doctoral candidates
– 13.5 bn. EUR research expenditure (2011)
Universities

- 2.6 million students enrolled (2013/14)
- Thereof ~ 300,000+ international (11.5%)
- Germany now third most popular study destination
- 37% of German students study abroad
Non-University Research Institutions

— Max Planck Society
  83 institutes & research centres; staff: 16,900;
  budget: € 1.53 billion

— Helmholtz Association of National Research Centres
  18 research centres; staff: 33,400;
  budget: € 3.8 billion

— Leibniz Association
  89 institutes & research facilities; staff: 16,800;
  budget: € 1.4 billion

— Fraunhofer Society
  66 institutes; staff: 23,000;
  budget: € 1.9 billion

Source: MPG, Helmholtz, Leibniz, Fraunhofer
Basic and Applied Research

Applied Research

Basic Research

Publicly Financed

Privately Financed

Industry

Max Planck Society

Helmholtz Association

Universities

Leibniz Association

Fraunhofer Society
Canadian-German Cooperation in Research and Technology

- Canada-Germany S&T (WTZ) (1971)
- NSERC – DFG (2011/2015)
- NRC – DLR (2015)
1. Facts and Figures

2. Research Funding: Programs for Researchers & Faculty
Funding Institutions

German Research Foundation – DFG
German Academic Exchange Service – DAAD
Alexander von Humboldt Foundation

European Research Council ERC

Research Organizations

Private/Public Foundations
The DAAD provides

— Scholarships & grants (for all disciplines, at all stages)

— Information and counseling about studying & research in Germany

— Support for internationalization of German universities
Facts & Figures

— 71 Regional Offices and Information Centres worldwide (incl. Toronto)

— Annual budget: ~ 441 m. € / CAD $ 650 m. in 2014

— Over 120,000 people supported by DAAD-administered programs annually

— DAAD funded scholars in 2014: 302 from Canada / 997 to Canada

www.daad.de
www.daad.org/canada
www.funding-guide.de
The DAAD Network – Worldwide
Programs for Postdoctoral Researchers

- **DAAD Research Grants**
  Research stays, 1 - 10 months

- **Helmholtz Postdoc Program**
  Research at a Helmholtz Institute, up to 3 years

- **Humboldt Research Fellowship for Postdoctoral Researchers**
  Research stays, 6 – 24 months
DAAD Research Grants

- To conduct research for a postdoc project

- WHO CAN APPLY? Postdocs, engaged full time in a postdoc position

- Duration: Long term (7 - 10 months) and short term (1 - 6 months) - depending on number of years after completion of dissertation (max. 2 years / max. 4 years)

https://www.daad.org/1891846
Humboldt Research Fellowships for Postdoctoral Researchers

— Offers support for longer term research stays at German universities or other research institutions; incl. research allowance for host institution

— WHO CAN APPLY? Postdoctoral Researchers (doctorate completed less than 4 years before application)

— DURATION: 6-24 months

www.humboldt-foundation.de/web/programmes.html
Programs for Faculty

- **DAAD Research Stays for University Academics and Scientists**
  Research stay, 1 - 3 months

- **Humboldt Research Fellowship for Experienced Researchers**
  6-18 months, can be divided into max. of three blocks within three years

- **DFG Research Grants**
  Research Projects, up to 3 years

- **International Visiting Scholars at Leibniz Institutes**

- **Foreign Visiting Researchers at Max Planck Institutes**
To pursue research at universities, libraries, archives, institutes or laboratories in Germany

WHO CAN APPLY? Postdocs and senior faculty. All applicants must work in a higher education institution or research institute in Canada

Duration: 1 - 3 months

https://www.daad.org/researchvisit
Re-Invitation Program

— Program to keep alive contacts/collaborations made during a DAAD-funded research or study stay

— WHO CAN APPLY? Former DAAD 1-year scholarship holders who are back in Canada for at least three years.

— Duration: 1 - 3 months

https://www.daad.org/reinvitation
Learn German in Germany

Grant to attend intensive language courses at various Goethe-Institut locations in Germany

WHO CAN APPLY? Faculty members in all academic fields except German Studies, German Language & Literature, & German Translation & Interpretation. Scholars who hold a PhD (or equivalent) & have been working in research or teaching full-time at a university or research institution in Canada for at least 2 years after PhD

DURATION: 4 weeks

https://www.daad.org/facultylanguage
WHO CAN APPLY? Scholars at Canadian universities from all disciplines.

Candidates must secure an invitation from a German host institution.

Paid according to standard German salary rates. Courses need not be taught in German.

Duration: 3 months - 2 years
Can be divided up if coordinated by universities

https://www.daad.org/visitingprofessor
Humboldt Research Fellowships for Experienced Researchers

— Offers support for longer term research stays at German universities or other research institutions

— WHO CAN APPLY? Experienced Researchers who completed their PhD less than 12 years ago

— DURATION: 6-18 months, can be divided into max. of three blocks within three years

www.humboldt-foundation.de/web/programmes.html
Group Study Visit

— Program to facilitate intensive engagement with modern Germany and incorporate cooperation with a German university partner

— WHO CAN APPLY? Faculty from all disciplines; 10 - 15 students + 1 faculty

— DURATION: Funding for 7 - 12 days (trip may be longer); provides EUR 50/day towards costs of accommodation & board

[https://www.daad.org/groupvisits](https://www.daad.org/groupvisits)
RISE Worlwide

— Research groups, labs or doctoral students can apply to host a DAAD-sponsored German research assistant during the summer semester

— Faculty, postdocs or PhD students working in the fields of biology, chemistry, physics, earth sciences or engineering can apply

— 6 weeks to 3 months beginning June 1

www.daad.de/rise-weltweit/en/
Inviting Colleagues from Germany

— Lecture Series
— Research Stays
— Short-term Lectureships
— Hosting PhD-Students or Postdocs from Germany

DAAD Scholarship Database (in German)
Supporting Students

— Group Study Visits
— University Summer Courses
— Language Courses
— RISE – Research Internships
— Study Scholarships
— Research Grants

www.daad.org/scholarship
Green Talents Competition

- Competition to identify best young scholars working on topics related to sustainable development
- Winners take part in two-week tour of leading sites of sustainability research
- Research stay at German institution of their choice
- Next call Spring 2016

www.greentalents.de
Grants to Support the Initiation of International Collaboration

— Researchers at *German* research institutions and universities can apply

— Funding to cover travel expenses (visits up to 3 months) and joint workshops

— Support is provided for the early stages of planning, developing and coordinating joint research cooperation

[www.dfg.de/en/bilateral_cooperation](http://www.dfg.de/en/bilateral_cooperation)
Bilateral Program for Cooperative Research Grants / PPP

— Program aims to intensify research cooperation within the scope of a concrete, joint research project in the natural sciences or engineering

— German universities can apply to facilitate the mobility of undergraduate, graduates and PhD students, as well as postdocs & faculty

— Maximum of 3 years for the entire project

DAAD Project Funding Database (in German)
International Study and Training Partnerships (ISAP)

— AIM: Increasing internationalization by funding highly qualified German and foreign students during a fully accredited study period of one or two terms within a partnership related to a specific field

— WHO CAN APPLY? *German* universities

— DURATION: 2 years, extensions possible

— SUPPORT: For German students - monthly scholarship & travel subsidy, insurance, tuition fees (up to 50% of regular fees), funds for language course and tutorials; For foreign students: funds for language courses and tutorials. For faculty: guest lectureships at partner institution

www.daad.de/isap
Integrated International Double Degree Programmes

- **AIM:** Increasing universities’ international profiles by initiating international degree programs awarding double degree

- **WHO CAN APPLY?** German universities

- **DURATION:** Maximum of 8 years for the entire project (1 year prep, 4 years program with 3 year renewal possible)

- **SUPPORT:** up to € 110K for personnel and material costs in planning phase, scholarships for German students during phases 2 and 3

[www.daad.de/doppelabschlussprogramm](http://www.daad.de/doppelabschlussprogramm) (in German)
International Research Training Groups (IRTG)
Research Cooperation

Search for Research Institutes & Partnerships

— Online databases with access to over 22,000 German university & non-university research institutes & over 27,000 research partnerships:

— [www.research-explorer.de](http://www.research-explorer.de)

— [www.higher-education-compass.de](http://www.higher-education-compass.de)
Research in Germany

www.research-in-germany.org
Next steps

- Invite German colleagues
- Use your research stay to facilitate research collaborations
- Host doctoral students/postdocs from Germany
- Apply for collaborative research funding with your German partner institution
- Use the information network in North America
Thank you for your attention.

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www.research-in-germany.org
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