The German Study and Research Landscape and Funding Opportunities

Dr. Frens Stoeckel, DAAD Information Centre Tehran, June 2017
The Germanic Exchange Service (DAAD) is...

A self-governing organisation of German universities:

- 239 member universities
- 122 student bodies
Branch Offices and Information Centres
Iran – Cooperation in the wake of sanctions

Reopening of Information Centre in Tehran

• Three German language assignments in Teheran and Isfahan

• Both number and qualification of Iranian scholarship holders highest in the MENA region

• German universities highly interested in exchange with Iran

• DAAD president and high-ranking delegation of University rectors pays official visit to Iran in 2014
Goals and tasks of the DAAD

Three strategic areas of activity

Grant scholarships to the best
- so that the professionals and leaders of tomorrow can gain qualifications at the best locations, prepare for positions of responsibility and cultivate contacts throughout the world.

Create structures that promote internationalisation
- so that higher education institutions can improve the quality of research and instruction and address the challenges of the future with strong partners.
- so that more people can cross borders and achieve success in study and research.
- so that German remains an important language of culture and scholarship.
- so that higher education institutions may contribute to development and build bridges to surmount conflicts.

SCHOLARSHIPS FOR THE BEST

STRUCTURES FOR INTERNATIONALISATION

EXPERTISE FOR ACADEMIC COLLABORATION

Offer expertise for academic collaboration
- so that academic and political leaders are able to make well-informed policy decisions.
Science Diplomacy as a Key Dimension of DAAD‘s Work in MENA

**Scientific values of rationality, transparency and universality are the same the world over. They can help to underpin good governance and build trust between nations. Science provides a non-ideological environment for the participation and free exchange of ideas between people, regardless of cultural, national or religious backgrounds.**

*(The Royal Society, 2010)*
Dimensions of Science Diplomacy

Diplomacy facilitates and promotes scientific cooperation; Addressing global problems

Using scientific knowledge for political decisions and the respective support

Scientific cooperation as a mean to improve international relations between states
"Mountains don’t meet, but people do."
Opening of Iranian Liaison Office in Bonn (May 2017)
Budget 2016

Federal Ministry of Education and Research (BMBF): € 100 million = 24 %

Federal Ministry for Economic Cooperation and Development (BMZ): € 40 million = 9 %

European Union (EU): € 58 million = 14 %

Federal Foreign Office (AA): € 181 million = 43 %

Other funding bodies: € 41 million = 10 %

Total: € 470 million

*Figures: 2013
Scholarships and Grants for the Best

Supporting students, researchers and artists in both directions

1,040,000
Germans have seen the world

790,000
foreigners have come to Germany

(1950 – 2012)
Origins and destinations of DAAD scholarship holders *

**Western Europe and Turkey**
- IN: 3,250
- OUT: 6,203

**North America**
- IN: 2,034
- OUT: 5,507

**Latin America**
- IN: 5,736
- OUT: 3,091

**Sub-Saharan Africa**
- IN: 4,278
- OUT: 2,014

**Asia-Pacific**
- IN: 15,714
- OUT: 5,614

**Central and Eastern Europe, CIS**
- IN: 6,455
- OUT: 1,770

**Iran**
- IN: 616
- OUT: 194

**North Africa / Middle East**
- IN: 6,455
- OUT: 1,770

**Sub-Saharan Africa**
- IN: 4,278
- OUT: 2,014

**Foreigners**
- IN: 45,206

**Germans**
- IN: 30,126

*in 2012, not including EU programmes*
Facts I Structures I Financing
Research in Germany
Almost 1,000 publicly funded research institutions

Research expenditures: 84 bn euros = 2.88% GDP

604,000 people in the R&D sector

Bilateral, European and multilateral cooperation with more than 151 countries

Figures from 2014
Research expenditures by sector in 2014 (%)

Source: Federal Statistical Office
Pillars of the German research sector

Universities (HEIs)  Non-university research institutes  Industrial research
Diversity | Excellence | Investments
Research institutions
Participants

- Universities
- Federal Institutions
- Max Planck Society
- Academies
- Research Infrastructures
- Land Institutions
- Helmholtz Association
- Fraunhofer-Gesellschaft
- Leibniz Association

- Industrial Research Associations (AiF)
- Companies/Industrial Research
- Networks and Clusters

public funding  private funding
HE Institutions

- Universities
- Technical universities
- Universities of applied sciences
- Colleges of music, art and film
- Private colleges and academies
Approx. 400 HEIs – 148 authorised to confer doctorates

Almost 26,000 international doctoral candidates

Principle of uniting learning, instruction and research

Excellence Initiative = 4.6 bn euros for cutting-edge research

Universities
Non-university research (I)
## The Big Four

<table>
<thead>
<tr>
<th>Institution</th>
<th>Institutes</th>
<th>Budget</th>
<th>Researchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Planck Society</td>
<td>83 institutes</td>
<td>2.2 bn euros</td>
<td>13,300</td>
</tr>
<tr>
<td>Helmholtz Association</td>
<td>18 research centres</td>
<td>4.24 bn euros</td>
<td>14,700</td>
</tr>
<tr>
<td>Fraunhofer-Gesellschaft</td>
<td>67 institutes</td>
<td>2.1 bn euros</td>
<td>24,000 (staff in total)</td>
</tr>
<tr>
<td>Leibniz Association</td>
<td>89 institutes</td>
<td>1.73 bn euros</td>
<td>9,300</td>
</tr>
</tbody>
</table>
Max Planck Society

- 83 institutes
- 2.1 bn euros
- 13,300 researchers
- 47% of the researchers are of international origin
Research for the future

- Basic research in the natural sciences, life sciences, social sciences and the humanities
- Innovative research fields which are especially demanding in terms of funding or time requirements
- Person-centered research organisation
- 18 Nobel laureates
Leibniz Association

89 institutes

1.73 bn euros

9,300 researchers

23% of the junior researchers are of international origin
Theoria cum praxi
Science for the benefit and good of humanity

- Natural, engineering and environmental sciences, economics, spatial and social sciences and humanities
- Knowledge transfer to policy-makers, academia, business and the public
- Scientific infrastructure, research-based services
- Archives, museums, national libraries
Helmholtz Association

18 research centres
€ 4.24 bn euros
14,700 researchers
7,500 of the researchers are of international origin (2014)
Shaping the future
with sustainable research

- Energy, earth and environment, health, key technologies, structure of matter, aeronautics, space and transport
- Research infrastructures
- Basic research with a focus on potential applications
- Applied research
67 institutes

2.1 bn euros

24,000 staff (in total)
Research dedicated to the future

- Integration of scientific findings into useful innovations for industry and society
- Health, security, communication, mobility, energy and environment
- Contract research for industry and government (70%)
Industrial research

- Federal Institutions
- Max Planck Society
- Academies
- Research Infrastructures
- Universities
- Helmholtz Association
- Länder Institutions
- Fraunhofer-Gesellschaft
- Leibniz Association
- Industrial Research Associations (AiF)
- Networks and Clusters
- Companies/Industrial Research

public funding

private funding
Industrial research

- 66% of all research funding in Germany comes from business and industry
- Innovation-driving sectors: pharmaceuticals, electronics, automotive engineering, mechanical engineering
- Technology transfer – Cluster formation, networks

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Germany – Driving innovation

- 10 German corporations are among the top 20 European innovation drivers
Use Research infrastructures together

Flash II – Free-electron laser, Hamburg
Knowledge and technology transfer
From the laboratory to the market

Creation of networks and clusters

Support for start-ups

Industry Science

Patent utilisation

Validation

Staff exchange / promotion of junior researchers
Germany – Driving innovation

R&D investments of the top 2,500 companies in regions of the world (% of total 607.2 bn euros)

Source: The 2015 EU Industrial R&D Investment Scoreboard
Germany – Driving innovation

EPAT and WIPO patent registrations per 1 million inhabitants

Source: Bundesbericht Forschung und Innovation 2015
Internationalisation strategy

- Interconnecting activities of multiple research institutes
- Promoting foreign students and researchers
- Expanding international research cooperation
- Research marketing campaign “Research in Germany”
- Research collaboration with the best in the world
Funding Your Research in and with Germany
Paths to a PhD

Individual vs. structured PhD

**Individual PhD**
- Individual research under supervision of supervisor
- Optional courses or other forms of teaching / learning
- Mostly informal admission and marginal formalisation

**Structured PhD**
- Guidance by a team of supervisors / supervising committee
- Mandatory, fixed supporting curriculum (interdisciplinary)
- Defined application process
- Offered by research training groups / graduate schools
Financing your PhD

- No tuition fees
- Living costs: approx. 800 € ($900) per month
- Can be self- or parent-financed (external funding)
- Financed by the German supervisor or host institution
- Individual funding: research associate contracts (part-time)
- Apply for a scholarship
## Funding for international researchers

### Different programmes for different purposes

<table>
<thead>
<tr>
<th>Duration</th>
<th>Short-term research stay (up to 2 years)</th>
<th>Long-term research stay (more than 2 years)</th>
<th>Complete doctorate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of funding</td>
<td>Grant / scholarship fellowship / award</td>
<td>Work contract</td>
<td>Funding*</td>
</tr>
<tr>
<td>Type of doctorate/position</td>
<td>Individual doctoral project / structured doctoral programme</td>
<td>Postdoctoral researcher / junior research group leader / junior professorship</td>
<td>Senior researcher / research group leader / professorship</td>
</tr>
</tbody>
</table>

*generally includes own salary and expenses for staff and consumables*
Funding for PhD students

Individual funding

- Individual doctoral projects at universities
- Individual doctoral projects at non-university research institutes:
  - Fraunhofer Institutes
  - Helmholtz Centres
  - Leibniz Institutes
  - Max Planck Institutes
- DLR-DAAD Research Fellowships
- …
Funding for PhD students

Graduate and research schools

- DFG Research Training Groups at universities
- Excellence Initiative Graduate Schools at universities
- DAAD-funded doctoral programmes at universities or non-university research institutes
- International Max Planck Research Schools (IMPRS)
- International Helmholtz Research Schools and Graduate Schools
- Leibniz Graduate Schools and ScienceCampi
- European programme: MSC Innovative Training Networks
Graduate schools

In Brief
Candidates earn a PhD as part of a structured doctoral programme

Who?
PhD students
Postdocs / Junior researchers

Duration?
3–4 years for PhD positions, otherwise dependent on the position

Value?
Work contract or scholarship

www.dfg.de/en/excellence-initiative/gsc
Individual doctoral projects at Fraunhofer Institutes

>>() In Brief Doctorate at a Fraunhofer Institute

>() Who? PhD students

>() Duration? 3 years

>() Value? Work contract

www.fraunhofer.de/en > Jobs / Career
# International visiting researchers at Max Planck Institutes

<table>
<thead>
<tr>
<th>Icon</th>
<th>In Brief</th>
<th>Independent research at a Max Planck Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who?</td>
<td>PhD students</td>
<td>Postdocs / Junior researchers</td>
</tr>
<tr>
<td></td>
<td>Senior researchers</td>
<td></td>
</tr>
<tr>
<td>Duration?</td>
<td>PhD students: up to 6 months</td>
<td>Postdocs: up to 2 years</td>
</tr>
<tr>
<td>Value?</td>
<td>Grant + travel allowances</td>
<td></td>
</tr>
</tbody>
</table>

[www.mpg.de/jobboard](http://www.mpg.de/jobboard)
Leibniz Graduate Schools and Leibniz ScienceCampi

In Brief
Structured PhD programme either at a Leibniz Institute or a partner university

Who?
PhD students

Duration?
Scholarship: max. 3 years
Work contract: 2–3 years

Value?
Scholarship: 1,150–1,450 €/month
Work contract (usually part-time): 1,700–2,600 €/month

www.leibniz-association.eu > Careers
Research Training Groups

🌟 In Brief
Focused research programme as part of a DFG Research Training Group (Graduiertenkolleg)

🌟 Who?
PhD students
Postdocs / Junior researchers

🌟 Duration?
2–3 years

🌟 Value?
Work contract or scholarship

www.dfg.de/gk/en

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Marie Skłodowska-Curie Innovative Training Networks

In Brief
Positions and structured doctoral training within Innovative Training Networks (formed jointly by different European institutions)

Who?
PhD students

Duration?
3–36 months

Value?
Work contract: 3,110 €/month + 600 € mobility allowance and 500 € family allowance (if applicable)

www.euraxess.de/en >Jobs
Green Talents

In Brief
Trips to leading German centres of environmental and sustainability research, followed by funded research stay

Who?
PhD students and postdocs / Junior researchers with a focus on sustainable development

Duration?
Two-week science forum in Germany, research stay of up to 3 months

Value?
Grant for a research trip and research stay

www.greentalents.de
Research grants – Doctoral programmes in Germany

In Brief
Doctoral project (individual or structured programme) at a state-run or state-recognised university or non-university research institute in Germany

Who?
PhD students

Duration?
Up to 3 years

Value?
750–1,000 €/month + additional allowances

www.funding-guide.de
Research grants – One-year and short-term grants

In Brief
Research or training project at a state-run or state-recognised university or non-university research institute in Germany

Who?
PhD students
Postdocs / Junior researchers

Duration?
One-year grants: 7–10 months
Short-term grants: 1–6 months

Value?
750–1,000 €/month + additional allowances

www.funding-guide.de
Research grants – Binationally supervised doctoral degrees

In Brief
Doctoral degree at home university with integrated research phases in Germany

Who?
PhD students

Duration?
Up to 2 years

Value?
Grant: 1,000 €/month + additional allowances during stay(s) in Germany

www.funding-guide.de
Re-invitation programme for former scholarship holders

In Brief
Research and work projects at a state-run or state-recognised HEI or non-university research institute

Who?
PhD students
Postdocs / Junior researchers
Senior researchers

Duration?
1‒3 months

Value?
Fellowship: 2,000‒2,150 €/month + travel allowances

www.funding-guide.de
German-Iranian Scholarship Programme (GISP) Implementation phase!

**In Brief**
Focused research stay in Germany as part of a PhD programme at an Iranian HEI

**Who?**
PhD students

**Duration?**
6–9 months

**Value?**
1,000/1,200 EUR p.m. scholarship

www.funding-guide.de
Funding for postdocs
## Funding for postdocs

Different programmes for different purposes

<table>
<thead>
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<th>Duration</th>
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Sources of information
Need more information?
Brochures
Need more information?
Consultation

DAAD Information Centre
Tehran

Dr. Shariati St., Yakhchal St., Keynejad St., Eslamieh East St., No.10

E-mail: info@daad-iran.org
Website: www.daad-iran.org
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
Thank you!

Dr. Frens Stoeckel
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