

The German Research Foundation (DFG) within the German System of Research and Innovation

**Greetings to all of you in Tehran
and beyond!**

**Dr. Jörg Schneider
Deutsche Forschungsgemeinschaft
(German Research Foundation)**



My Talk Today...

PART 1 – The German Research System

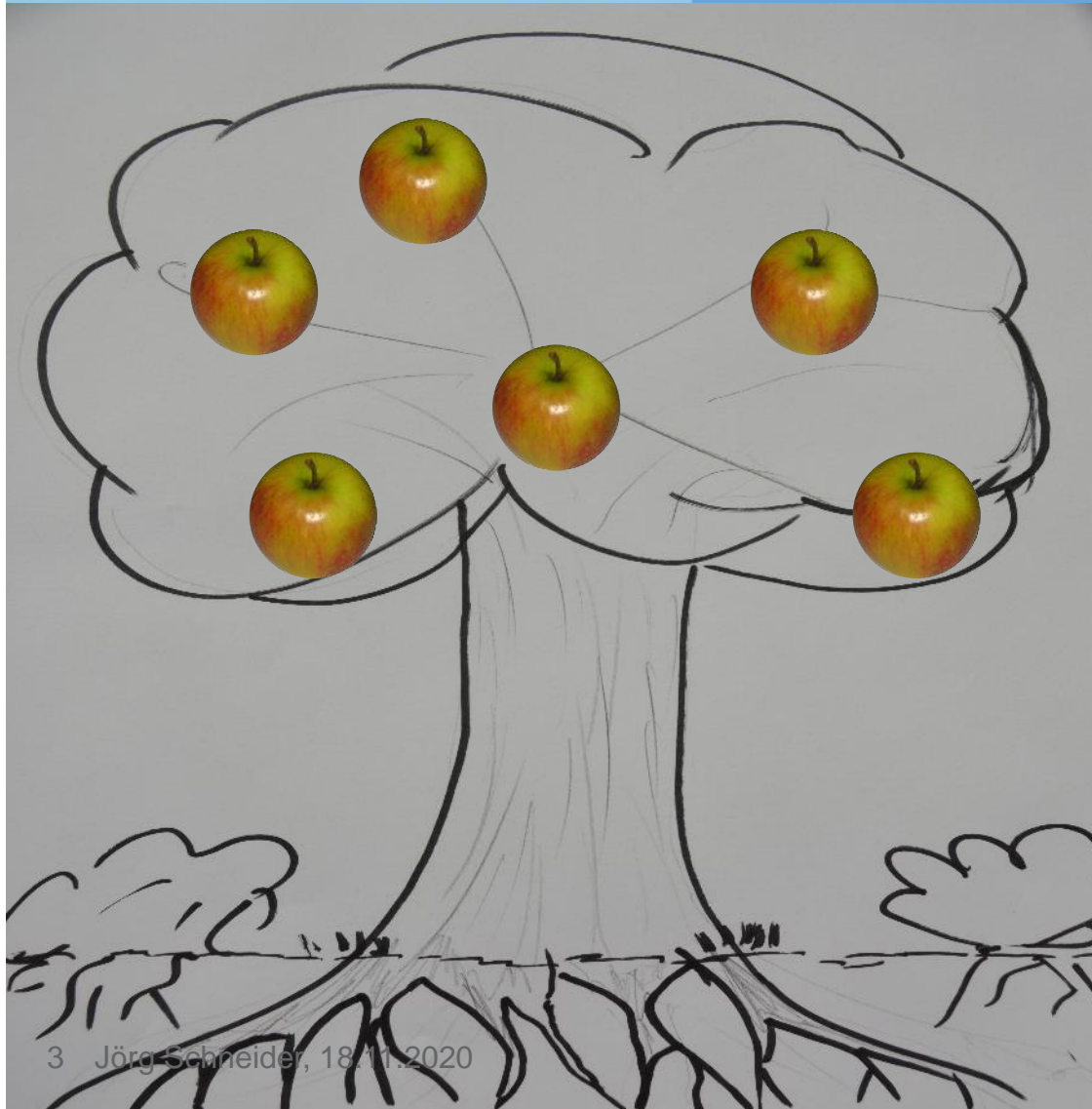
1. **The German Research & Innovation System**
2. **Current R&D Spendings in Germany**
3. **Research Funding in Germany**
4. **Research Institutions for Medical Research**

PART 2 – Funding Opportunities by DFG

by Dorothea Fendel



The German System – a healthy tree ...



Kashan

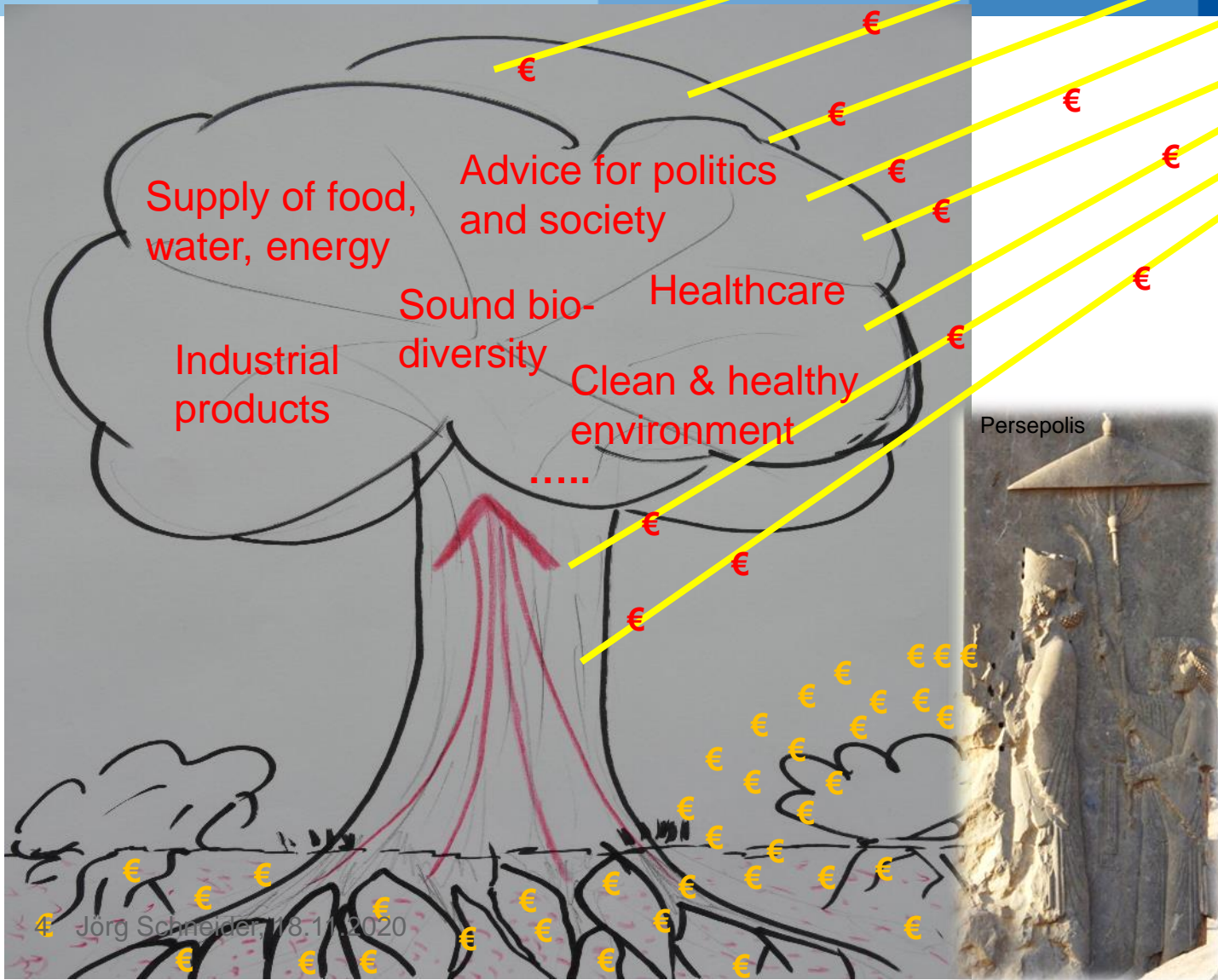
R&D products for
Society, Economy,
Health, Environment...

...fed by
pre-competitive
applied research,
problem-driven...

... and growing on
basic research,
science-driven

... if provided for adequately!

Top down
funding,
problem-
oriented



Bottom up funding,
quality-oriented,
but no thematic
programmatic!

The complex German Research Ecosystem

(funding by public sector = 32% of all)

Top down
funding,
problem-
oriented

Institutional funding
by federal and regional
Governments

www | ressort
forschung | de

Supply of food, Water, energy
Advice for politics and society

Industrial products

Sound bio-diversity

Healthcare

Clean & healthy environment

Fraunhofer Gesellschaft

HELMHOLTZ
GEMEINSCHAFT

Leibniz
Leibniz Association

Institutions
of
Higher
Education
IHE

Jörg Schneider 18.11.2020
MAX-PLANCK-GESELLSCHAFT



The
Federal Government
& Federal States
≈ 30bil.€

No political interference!

≈13%

Persepolis

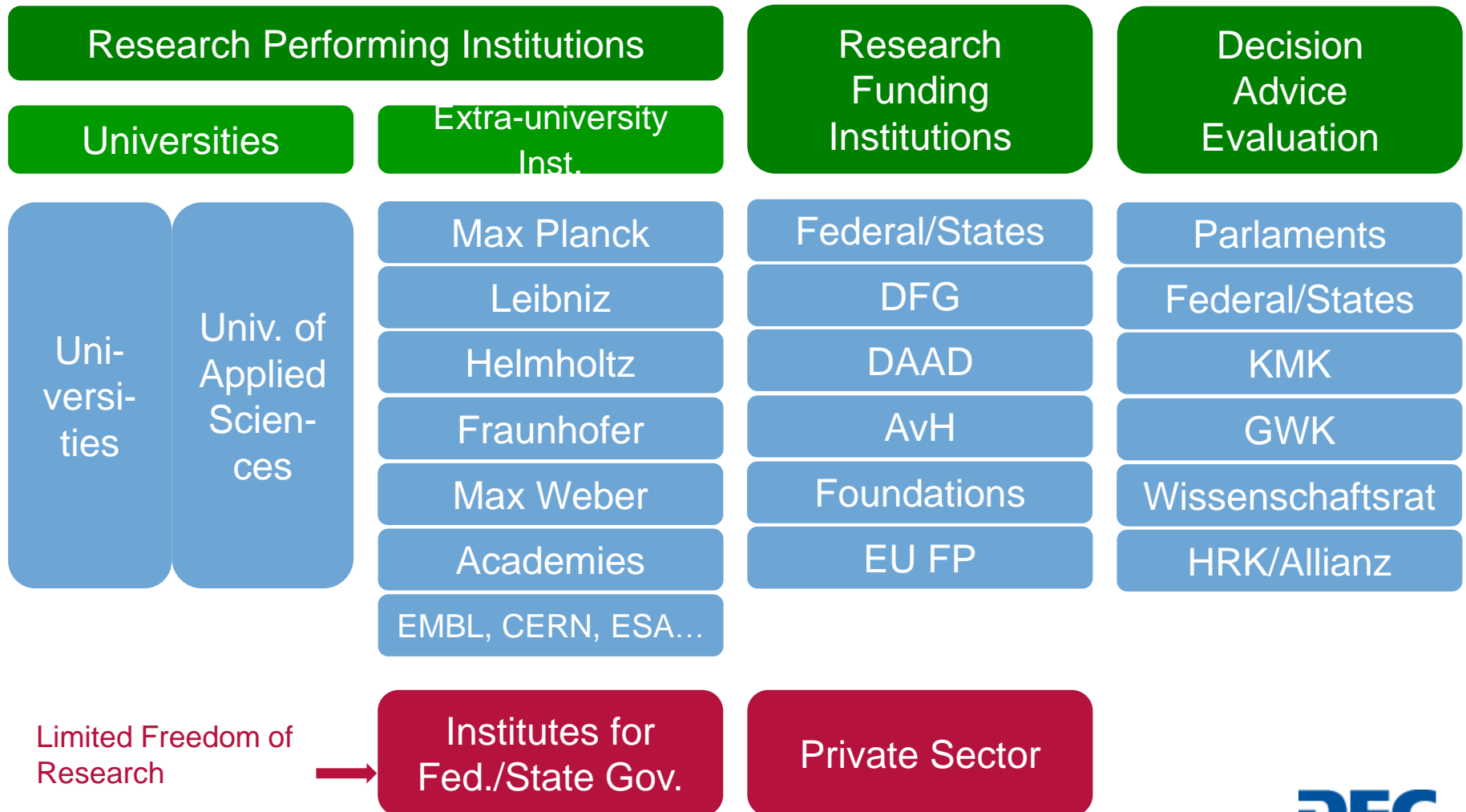
Bottom up funding,
quality-oriented,
no thematic
programmatics!

≈ 3,9 bil.€

DFG
DAAD

The German System of Research and Innovation

Some important players...



My Talk Today...

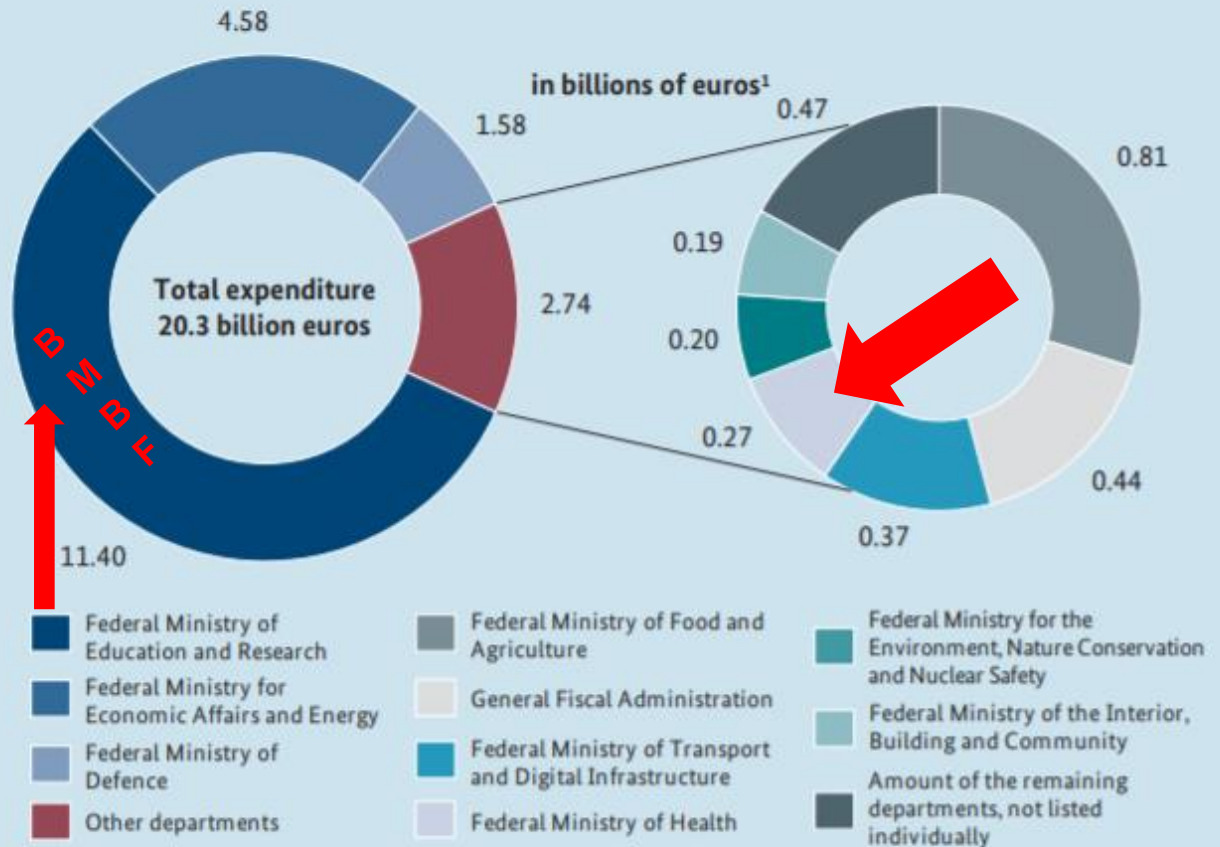
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Federal Government Expenditure on R&D (2020 target)



Esfahan



Explanation of abbreviations/symbols: R&D = research and development.

1) Differences in the calculation may arise due to sums in billions being rounded up or down.

Source: Federal Ministry of Education and Research

BMBF's Data Portal: Figure link: datenportal.bmbf.de/fig-7

Additional data: datenportal.bmbf.de/en/1.1.4

Federal Government Expenditure on R&D

in millions of euros (2018-2020)

Funding area ^{1,2}	2018 (ACTUAL)	2019 ³ (TARGET)	2020 ³ (TARGET)
A Health research and health industry	2,519.5	2,687.8	2,850.1
B Bioeconomy	295.5	280.8	297.2
C Civil security research	139.0	153.6	160.3
D Nutrition, agriculture and consumer protection	709.0	837.6	981.9
E Energy research and energy technologies	1,327.7	1,779.4	1,647.4
F Climate, environment, sustainability	1,358.7	1,529.3	1,517.2
G Information and communication technologies	851.7	1,219.3	1,411.7
H Vehicle and traffic technologies including maritime technologies	367.7	534.3	429.5
I Aerospace	1,816.6	1,867.5	1,957.2
J Research and development to improve working conditions and in the service sector	115.1	123.7	136.0
K Nanotechnologies and materials technologies	719.9	813.5	844.3
L Optical technologies	230.2	237.5	245.8
M Production technologies	253.1	270.0	281.8
N Regional planning and urban development; construction research	118.1	147.6	157.7
O Innovations in education	570.7	641.1	619.5
P Humanities; economics and social sciences	1,160.6	1,329.3	1,384.8
Q Innovation funding for SMEs	1,037.1	1,209.7	1,282.6
R Innovation-relevant underlying conditions and other cross-cutting activities	584.0	615.7	754.0
T Funding organisations, restructuring of the research field in acceding areas; construction of universities and primarily university-specific special programmes	760.3	791.5	786.7
U Large-scale equipment for basic research	1,311.8	1,377.9	1,467.2
Total of civil funding areas	16,246.2	18,079.9	18,757.1
S Military scientific research	1,003.8	1,521.3	1,544.0
Total expenditure	17,250.0	19,601.2	20,301.1



Tehran

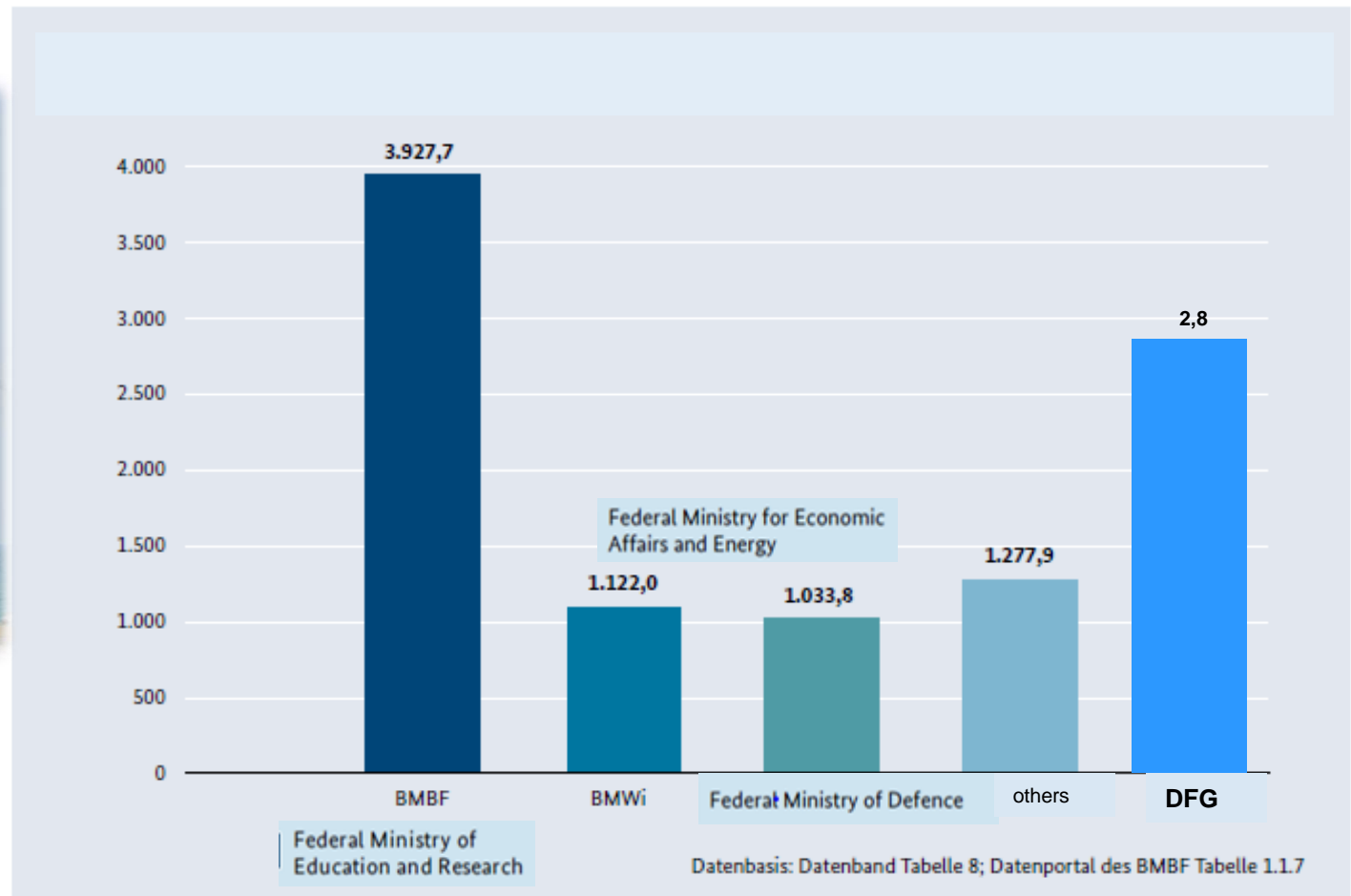
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Project Funding by Federal Government and DFG in 2017

(in Mio. €)



Project Management Teams of the Government

Why „always“ DLR???

- ▶ organize and carry out the research funding programs, mainly of BMBF
- ▶ Tasks
 - **Advice** for (potential) applicants and funded researchers
 - **Administration** of project funding and funded projects
- ▶ Attached to Helmholtz Centres or other appropriate organizations e.g.
 - Arbeitsgem. industrieller Forschungsvereinigungen "Otto v. Guericke" e.V. (AiF)
 - Deutsches Elektronen-Synchrotron DESY
 - **Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR)**
with International Bureau (IB)
 - Forschungszentrum Jülich (FZJ)
 - Gesellschaft für Schwerionenforschung (GSI)
- ▶ BMBF could not do without them!



Non-Governmental *bottom up*-Funding

DFG:
Projects

AvH:
People

DAAD:
Mobility



Damawand, Iran 4660m



Goals and tasks of the DAAD

Three strategic areas of activity

**The DAAD has helped
1,175,000 Germans travel
the world since 1950.**

**The DAAD has introduced 860,000
foreigners to Germany since 1950.**



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.

SCHOLARSHIPS FOR THE BEST

STRUCTURES FOR INTERNATIONALISATION

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.

EXPERTISE FOR ACADEMIC COLLABORATION

Offer expertise for academic collaboration

- so that academic and political leaders are able to make well-informed policy decisions.

2019: 560 Mio. €

DAAD

Deutscher Akademischer Austauschdienst
German Academic Exchange Service

تحصیل و پژوهش در آلمان

بیشتر »



iStockphoto

اطلاع رسانی

به اطلاع می‌رسانیم با توجه به شرایط موجود و هشدارهای اعلام شده توسط وزارت بهداشت، درمان و آموزش پزشکی و ضرورت رعایت نکات بهداشتی، دفتر موسسه تبادلات آکادمیک آلمان (DAAD) در تهران تا اطلاع ثانوی تعطیل می‌باشد. در این مدت تنها راه ارتباطی با این دفتر از طریق ایمیل خواهد بود. با آرزوی سلامتی

اطلاع رسانی

همکاری با دانشگاه‌ها

برنامه‌های آکادمیک بین آلمان، ایران و سایر کشورهای طرف همکاری DAAD خواستار ایجاد ساختارهای باز جهانی است تا از این طریق دانشگاه‌ها بتوانند با یکدیگر همکاری و تبادل داشته باشند و اینگونه کیفیت آموزش و پژوهش ارتقاء یافته تا بتوان با چالش‌های پیش رو





The Humboldt Foundation's areas of work

- sponsorship of international academics as a part of foreign cultural and educational policy
- strengthening cutting-edge research through internationalisation
- impetus for the research location Germany by promoting individuals
- advancing development through academic cooperation

Principles of the Foundation

- sole selection criterion: academic excellence
- no quotas for countries or disciplines
- sponsorship of people, not projects
- free choice of academic host/collaborative partner in Germany
- independent scientific research, not stipulated by the Foundation

President of Humboldt Alumni Club of Iran



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Professor of Organic Chemistry
Peptide Chemistry Research Center
K. N.Toosi University of Technology
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Opportunities for Joint Research Projects with the Universities in Germany



Dr. Jörg Schneider
Head of International Affairs, DFG

- ▶ “Overview of the German research system”



Dorothea Fendel
International Affairs, DFG

- ▶ “DFG funding opportunities for international collaboration”

DATE & TIME

NOVEMBER 18, 2020

10:30 GMT - 14:00 IRAN - 11:30 GERMANY

JOIN US

<https://webinartums.tums.ac.ir/dfg-tums-webinar/>

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The complex German Research Ecosystem (funding by public sector = 32% of all)



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Persepolis



DFG
DAAD



Institutions

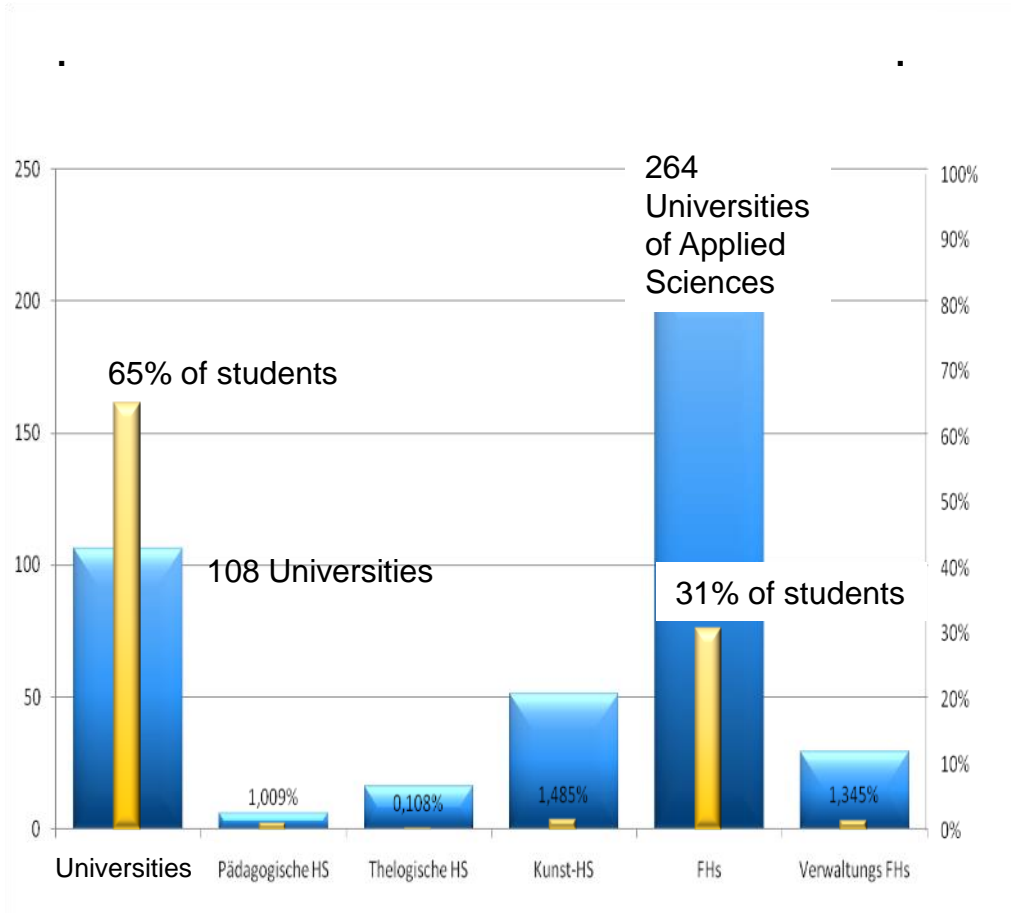
of

Higher

Education

IHE

Institutions of Higher Education IHE

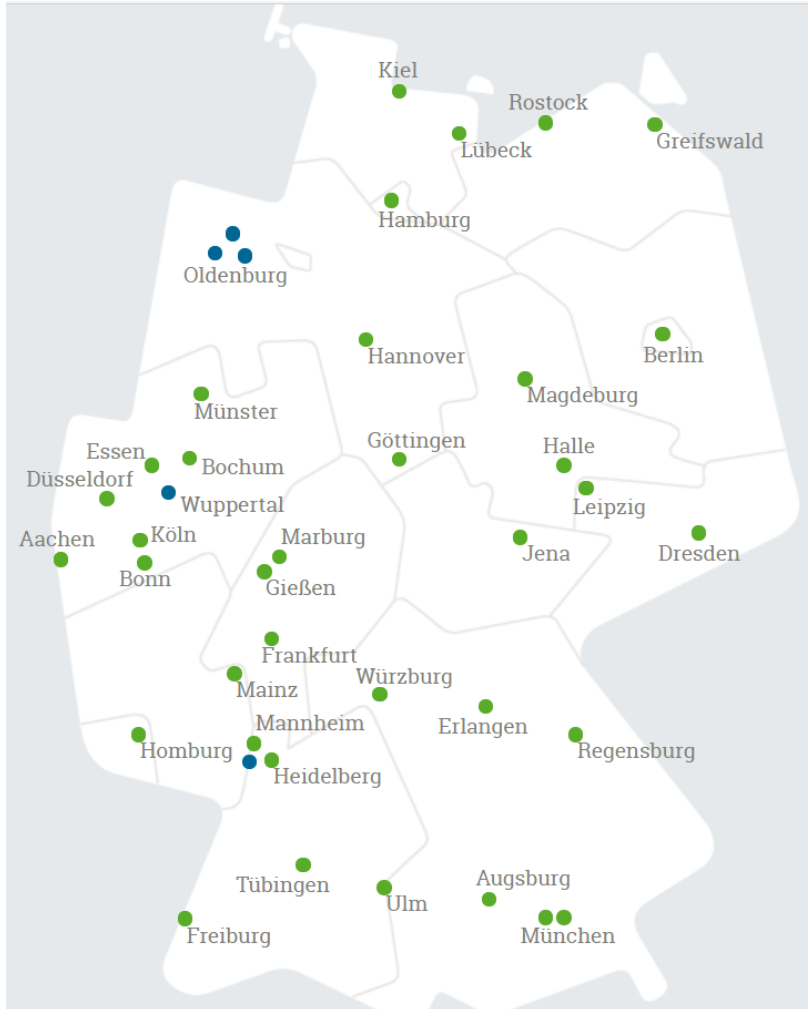


In Germany (2018/19):

- ▶ 426 IHE
- ▶ 2,9 Mio. students
- ▶ 46% pupils from one year go to IHE
- ▶ PhD can only be granted by Universities
- ▶ UAS have strong links to local economy, often SME

Source: Federal Statistics Bureau

34 University Teaching and Research Hospitals in Germany



- ▶ roughly 2000 hospitals in Germany
- ▶ 34 universities run their own teaching and research hospitals for education of medical doctors and cutting-edge medical research

<https://www.uniklinika.de/die-deutschen-universitaetsklinika/uebersicht-der-universitaetsklinika/>



Universities of Applied Sciences – „Fachhochschulen“



- ▶ 264 UAS
- ▶ roughly 90 of them are supposed to be strong in research
- ▶ 44 AUS with medical research foci from *Nursing Sciences* to *Micro-Devices*



German Centres for Health Research

- German Cancer Consortium (DKTK)
- German Centre for Diabetes Research (DZD)
- German Centre for Cardiovascular Research (DZHK)
- German Centre for Infection Research (DZIF)
- German Centre for Lung Research (DZL)
- German Centre for Neurodegenerative Diseases (DZNE)

More than 80 regional hubs with more than 100 Universities, Universities of Applied Sciences, and Extra-University Institutes



Persepolis



About 45 Max-Planck Institutes have research foci relevant for biomedical researchers



Max-Planck-Alumni with president of MPG and DFG

Leibniz Association – Section Life Sciences



Bernhard Nocht Institute for Tropical Medicine (BNITM)

Deutsches Primatenzentrum - Leibniz-Institut für Primatenforschung (DPZ)

German Diabetes Center - Leibniz Center for Diabetes Research at Heinrich Heine University Düsseldorf (DDZ)

German Institute of Human Nutrition Potsdam-Rehbruecke (DIfE)

German Rheumatism Research Centre Berlin (DRFZ)

Heinrich Pette Institute – Leibniz Institute for Experimental Virology (HPI)

IUF – Leibniz Research Institute for Environmental Medicine (IUF)

Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP)

Leibniz-Institute DSMZ–German Collection of Microorganisms and Cell Cultures (DSMZ)

Leibniz-Institute for Food Systems Biology at the Technical University of Munich (LSB)

Leibniz Institute for Farm Animal Biology (FBN)

Leibniz Institute for Natural Product Research and Infection Biology - Hans Knöll Institute (HKI)

Leibniz Institute for Prevention Research and Epidemiology (BIPS)

Leibniz Institute for Resilience Research (LIR)

Leibniz Institute for Zoo and Wildlife Research (IZW)

Leibniz Institute of Plant Biochemistry (IPB)

Leibniz Institute of Plant Genetics and Crop Plant Research (IPK)

Leibniz Institute on Aging - Fritz Lipmann Institute (FLI)

Leibniz Research Centre for Working Environment and Human Factors (IfADo)

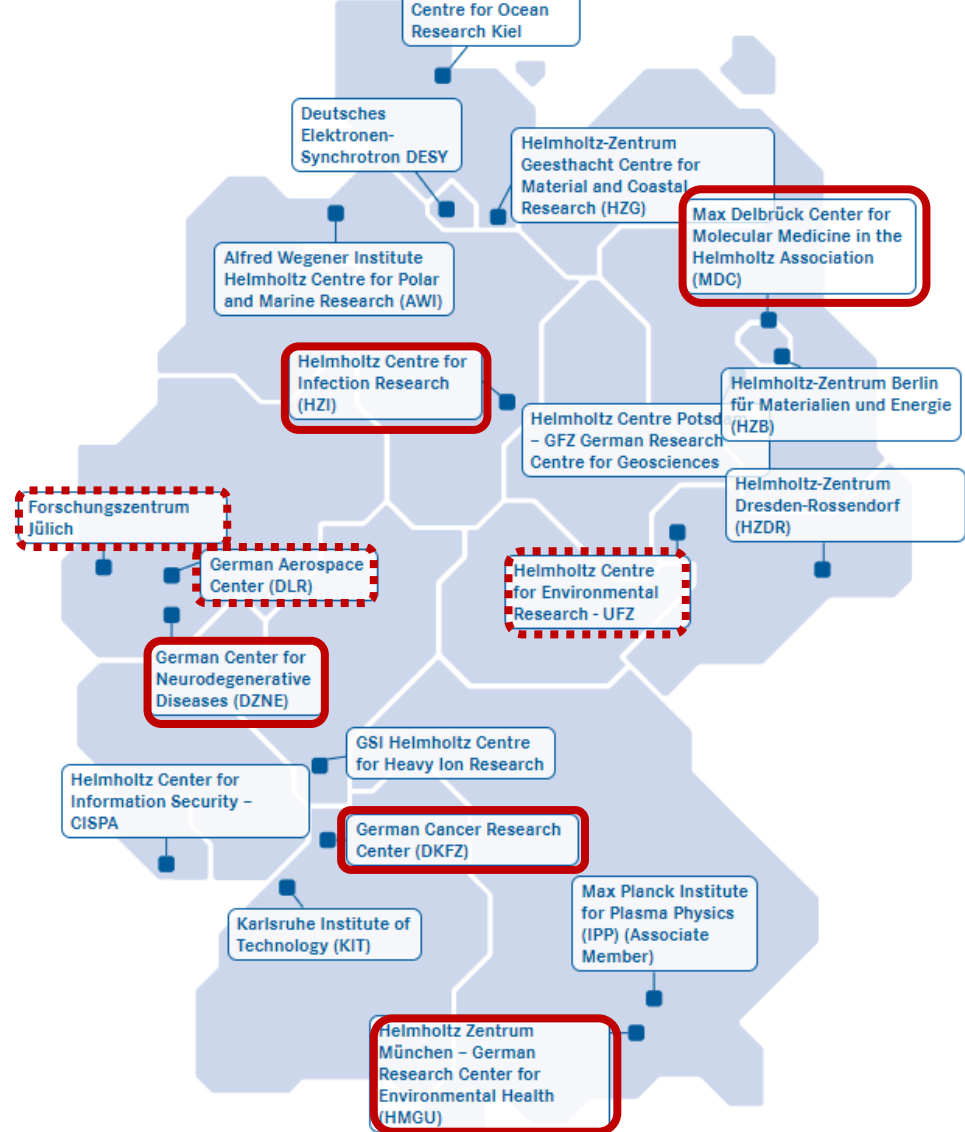
Museum für Naturkunde - Leibniz Institute for Evolution and Biodiversity Science (MfN)

Research Center Borstel - Leibniz Lung Center (FZB)

Senckenberg Society for Nature Research - Leibniz Institution for Biodiversity and Earth System Research (SGN)

Helmholtz Association

HELMHOLTZ RESEARCH FOR GRAND CHALLENGES



Information Day on German-Iranian Scientific Cooperation
21st October 2017 at Shiraz University

Shiraz University

شنبه ۲۹ مهر ماه ساعت ۹ صبح
تالار خوارزمی (میدان نمازی)

Speakers:

- JÖRG SCHNEIDER** (German Ambassador to Iran)
- SUSANNE MADDERS** (German Ambassador to Iran)
- LUDWIG STROINK** (German Ambassador to Iran)
- ARZHANG KHALILI** (German Ambassador to Iran)
- FRENS STOECHTEL** (German Ambassador to Iran)
- BAHRAM HEMATEEJAD** (German Ambassador to Iran)
- HENDRIK MEURS** (German Ambassador to Iran)
- PAYAM PARZISADE** (German Ambassador to Iran)

شست هیات وزارت آموزش و سایر موسسات تحقیقاتی کشور آلمان با اعضای هیات علمی و دانشجویان تحصیلات تکمیلی دانشگاه

Fraunhofer Group for Life Sciences

- **Fraunhofer-Institute for Biomedical Engineering IBMT**
- **Fraunhofer-Institute for Interfacial Engineering and Biotechnology IGB**
- **Fraunhofer-Institute for Molecular Biology and Applied Ecology IME**
- **Fraunhofer-Institute for Toxicology and Experimental Medicine ITEM**
- **Fraunhofer-Institute for Process Engineering and Packaging IVV**
- **Fraunhofer-Institute for Cell Therapy and Immunology IZI**
- **Fraunhofer Research Institution for Marine Biotechnology and Cell Technology EMB**



Please contact us on any specific questions
on Iranian-German cooperation!

Thank
you for
your
attention!

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DFG