

Deutsche
Forschungsgemeinschaft

Research and Research Career Opportunities in Germany:

The German Research Foundation and its Funding Opportunities for Young Researchers at PhD Level

Dr. Max Vögler
(Head of North American Section, DFG)



DFG

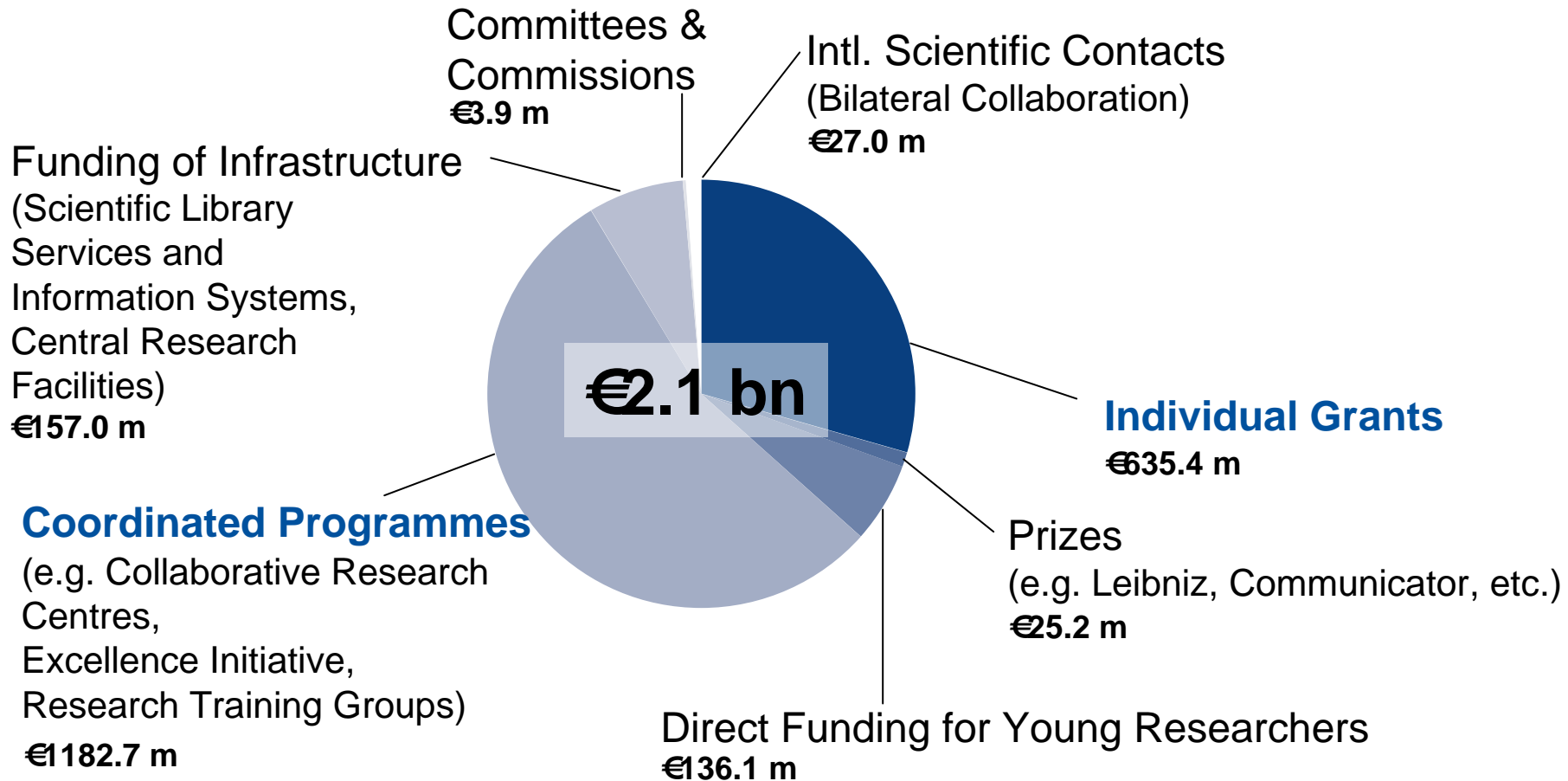
DFG - Who we are and what we do

- central public funding organization for academic research in Germany
- Promotion of excellence on a competitive basis
- All fields of science, humanities and the arts
- Advisor of politics
- **Support for junior researchers**
- Promotion of international research cooperation
- Facilitation of transfer from science to industry





DFG Procedures und Programmes: Awarded funding 2007



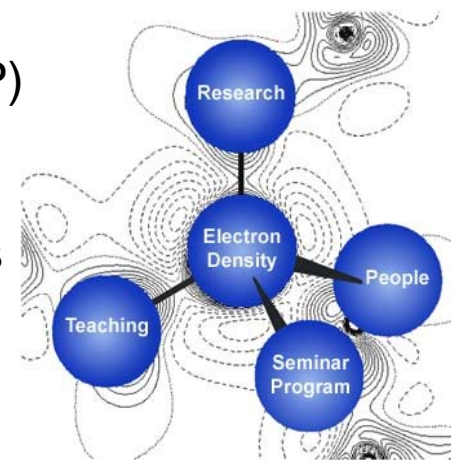
as of: 2008

DFG-Funding Chain for Junior Scientists					
undergraduate level	PhD candidates	postdoc-qualification	assistant professorship phase	associate professorship phase	university chair
(~ 5 years)	(~ 3 years)	(~ 3 years)	(~ 5 years)	(~ 5 years)	
Student in DFG Project or Research Training Group	Position in a DFG-funded research project Fellowship/position in Research Training Group or Graduate School Positions in Research units, Collaborative Research Centres or Clusters of Excellence	Position in a DFG-funded research project Fellowship/position in Research Training Group or Graduate School Research Fellowship/ Indep. Postdoc position	Position in a DFG-funded research project Emmy Noether Programme Research Group Leader in Collaborative Research Centres, Clusters of Excellence, Research Units Research Fellowship/ Indep. Postdoc position	Position in a DFG-funded research project Heisenberg-Programme (fellowship or professorship) Research Fellowship/ Indep. Postdoc position	



Structured PhD Programmes: examples

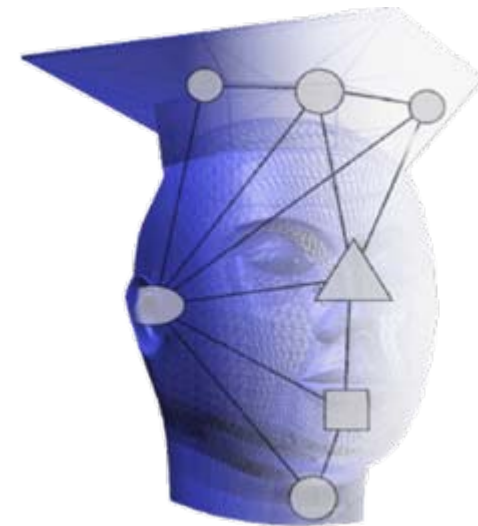
- 3 major funding programmes for doctoral programs in DFG portfolio:
 - **(International) Research Training Groups (Graduiertenkollegs)**
 - **Integrated RTG in Collaborative Research Centres (SFBs)**
 - **Graduate Schools (Excellence Initiative)**
- The DAAD - DFG International Postgraduate Programmes (IPP)
- International Max Planck Research Schools (IMPRS)
- Helmholtz-Kollegs and Graduate Schools at Helmholtz Centres
- Graduate Schools of Germany's Federal States
- Graduate Schools/programmes of universities or departments





Research Training Groups (since 1990)

- established by small group of 5-10 cooperating researchers at university (single-site principle)
- coherent, innovative research programme (interconnected thesis projects)
- tailor-made qualification programme, joint supervision and mentoring
- integration of mobility and networking
- large scope for students' initiatives
- internationality encouraged
- funding (2*4.5 years) provided for
 - PhD fellowships/positions
 - Postdoc fellowships/positions
 - mobility (PhDs, guest scientists)
 - consumables, courses & workshops

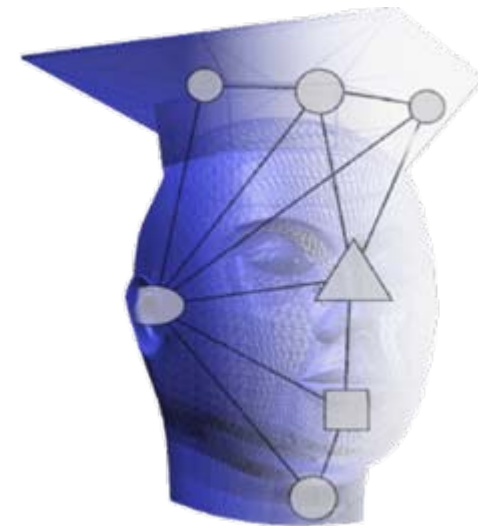




International Research Training Groups (since 1997)

- promote bilateral cooperation between **two universities**
- integration of *complementary expertise*
- systematic coordination of **bilateral research projects**
- **joint qualification** programme
- **joint supervision**
- 6-12 month **research mobility period** @ partner university
- complementary funding required!

- currently: 55 IRTGs with partners in 19 different countries





Opportunities in Research Training Groups

- all RTGs welcome international candidates (30% PhDs, > 40% Postdocs)
- many RTG offer curriculum in English
- application requirements, deadlines, admission criteria etc. decided by RTG
- candidates apply directly @ RTG (not DFG)

- 3-year Doctoral Fellowships: 1103 € - 1468 €
- RTGs in Engineering, IT, Physics, Chemistry, Applied Mathematics may offer non-permanent employment (50-100% TVL 13) instead
- 2-year Postdoctoral fellowships: 1468 € - 1600 € (or employment)
- support for consumables, travel costs, publications etc available from RTG

Integrated RTGs in DFG Collaborative Research Centres

DFG Collaborative Research Centre (CRC/SFB)

- interdisciplinary centre of excellence in one specific field of science or the humanities, single-site principle
- 10 – 20 PIs; 10 – 20 specified projects
- funded by DFG for up to 12 years (currently more than 270 CRCs)

Integrated Research Training Groups in CRCs (since 2006):

- integration into an exciting larger interdisciplinary research context
- specific research and study program
- innovative, transparent supervisory and mentoring structures
- transparent of admission doctoral students

=> www.dfg.de/sfb/en

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Thank You!
Questions?

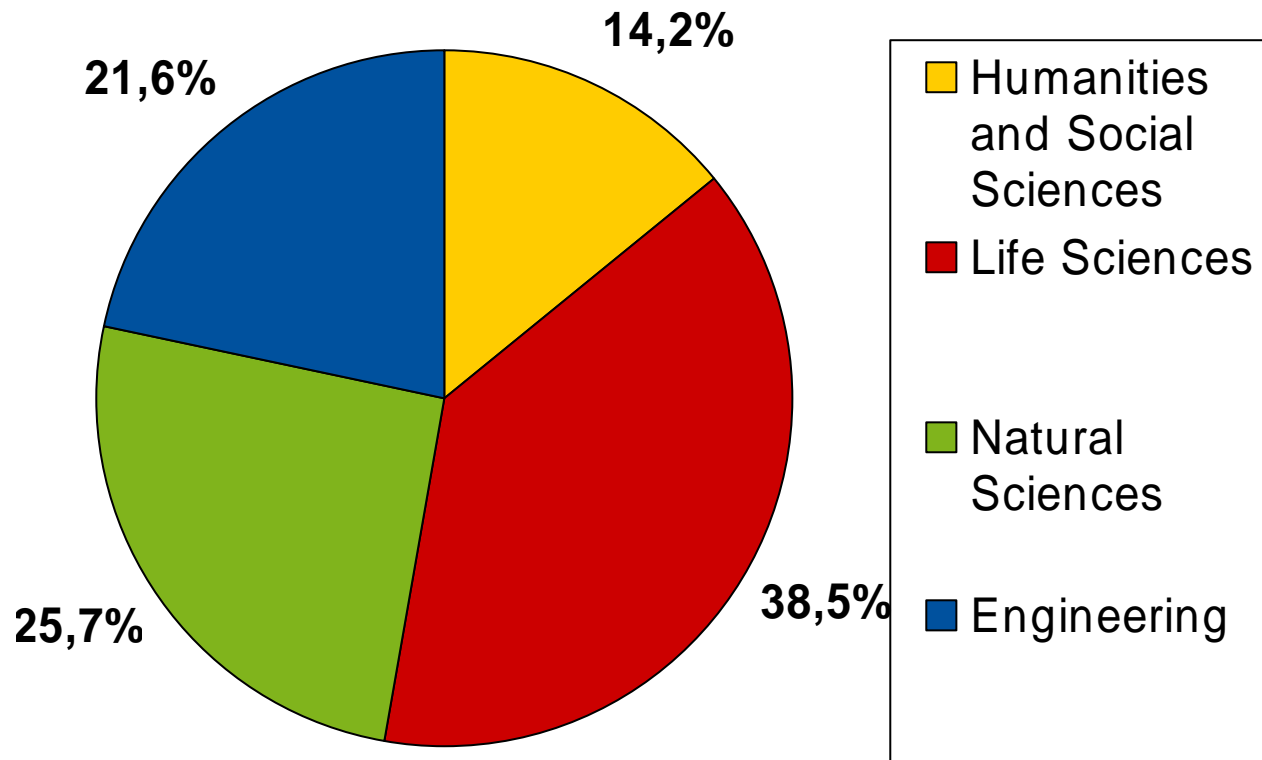
Dr. Max Vögler
International Affairs
DFG
max.voegler@dfg.de



DFG



The DFG: Funding for Scientific Fields in % (2007)

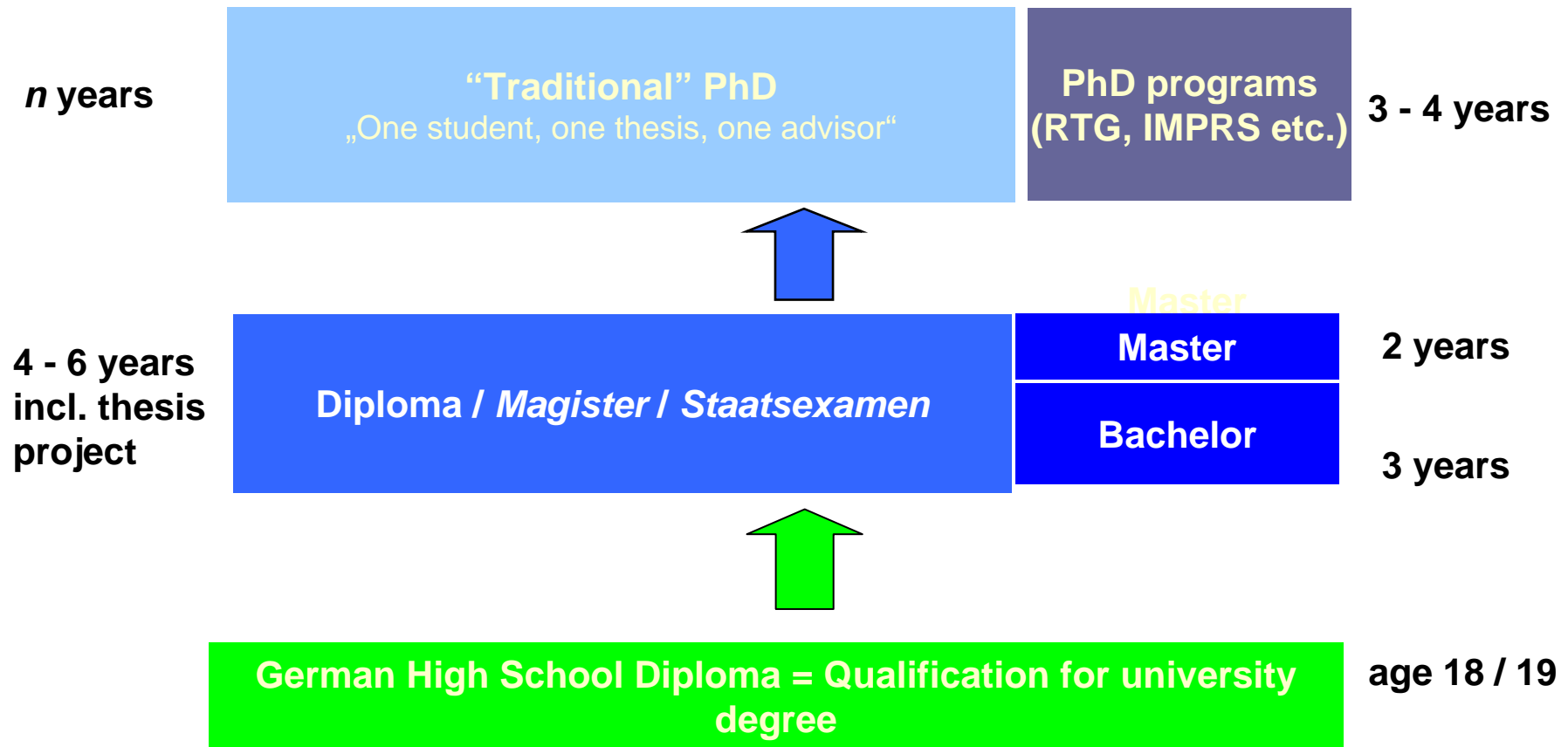


Data: individual grants, funding for young researchers & coordinated programmes (without institutional strategies for advancing top-level university research and not classified graduate schools)



The Structure of Higher Education in Germany

26.000 doctorates





Graduate Studies in Germany

- traditionally: no Graduate Schools
- rules and regulations set by department/faculty
- “apprenticeship” PhD model
- no supplemental lectures or courses (as part of a research and study program)
- research project integrated into respective professor’s research activities
- no standards for supervision and mentoring, strong dependence on “Doktorvater”

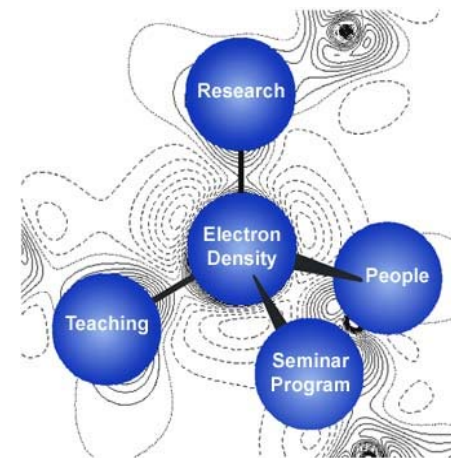
**=> structured PhD programmes
instead of apprenticeship model!**





Structured PhD Programmes: hallmarks

- thesis project as as part of broader, integrated **research program**
 - complemented by **additional courses** (scientific, soft skills etc.)
 - **formalized mentoring** and supervision schemes (>1 supervisor)
 - integration into **group of interacting PhD students**
 - integration into the respective scientific community
- variety of different models and actors!





Excellence Initiative (2005-2011)

Idea

- Strengthen Germany's universities
- Make them more visible and attractive internationally
“better faculty, better students, better research”

Process

- fresh money: 1.9 billion € for 5 years
- 3 funding lines: **Clusters of Excellence, Graduate Schools, Institutional Strategies**
- Two calls for proposals: July 2005 / April 2006
- decisions in October 2006 and October 2007



Profile of Clusters of Excellence and Graduate Schools

Clusters of Excellence

Large association of researchers
(25-50)

Concentrate research competence in
particularly innovative fields

Built on already existing strengths

Internationally visible and highly competitive

Significant impact on university's profile

Reflects the university's long-term priorities

Graduate Schools

Structured research training in an excellent
research environment

Creation of internationally competitive centre of
top-level research and scientific excellence by
promoting young researchers

Instrument of quality assurance in promoting
young researchers

Integrative institution with international visibility

Important part of a university's strategic and
academic planning



Research Training Groups vs Graduate Schools

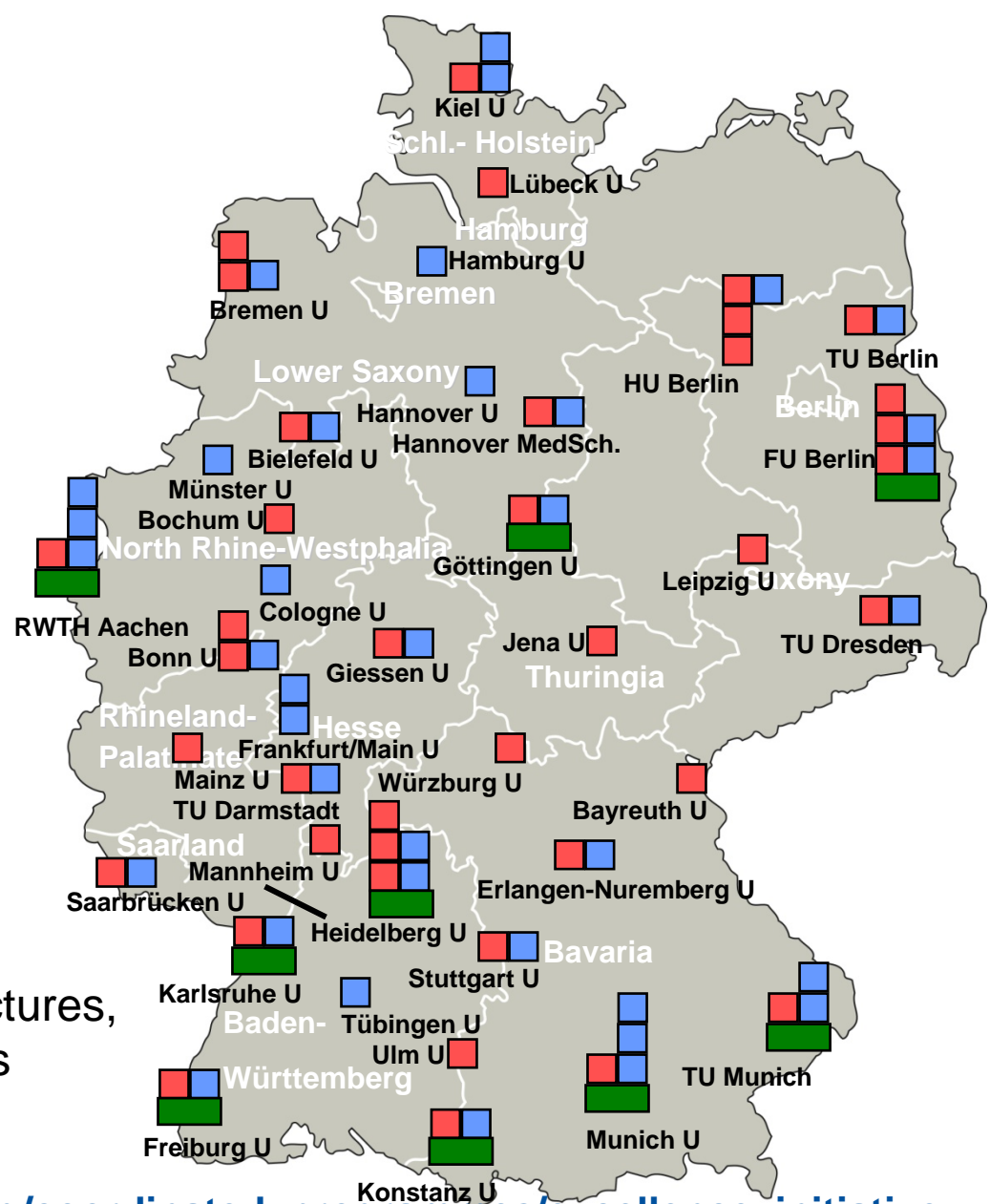
- **Research Training Group**
 - focused research topic
 - interconnected projects
 - small group of actors
(5-10 PIs, 5-20 PhD candidates)
 - „pioneer“ unit in university structural effects expected
 - funds mainly for PhD candidates
 - cooperative „aggregation“; part-time coordination
- **Graduate School**
 - larger research area
 - not project-driven, varying degree of cooperation
 - larger group of actors
(some 25 PIs, up to 100 PhD candidates)
 - overarching or „umbrella“ structure
(departments/faculties, university-wide)
 - key component of university profile
 - comprehensive funding
 - institution with defined statutes and professional full-time management

Germany after the Excellence Initiative

Funding lines in the
Excellence Initiative 2007:

-  **39 Graduate Schools**
-  **30 Clusters of Excellence**
-  **9 Institutional Strategies**

large variety of topics, scopes, structures,
admission and Phd track schemes



=> www.dfg.de/en/research_funding/coordinated_programmes/excellence_initiative



Research Training Groups: Facts & Figures

- Budget **88 M €** (~ 6 % of DFG total)
- ~ **30** new RTGs established per year
- **236** (I)RTGs currently funded
- ~ **6.300** doctoral students currently funded

=> www.dfg.de/gk/en/

Approvals by Scientific Disciplines

