



# DFG funding in Nuclear and Particle Physics

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Geosciences

# What is the DFG?

Germany's largest research funding organisation

## The DFG

- ▶ serves **all branches of science and the humanities** by funding research projects and facilitating cooperation among researchers
- ▶ supports the **education and advancement** of young scientific researchers
- ▶ promotes **equality** between men and women
- ▶ **advises parliaments and public authorities** on scientific matters
- ▶ fosters **relations between research and the private sector** and between **scientists and academics at home and abroad**



# What are the DFG's aims and tasks?

- ▶ **Core task – to promote science and to fund the best scientific projects and ideas on a bottom up competitive basis**

By this way:

- ▶ ensure the best possible support for outstanding scientists and **young researchers**
- ▶ make research funding **open to all disciplines** in accordance with **scientific standards of quality**
- ▶ keep **Germany future-oriented** and **internationally competitive** as a scientific location



# What is the DFG?

An association under German private law

The DFG is funded by

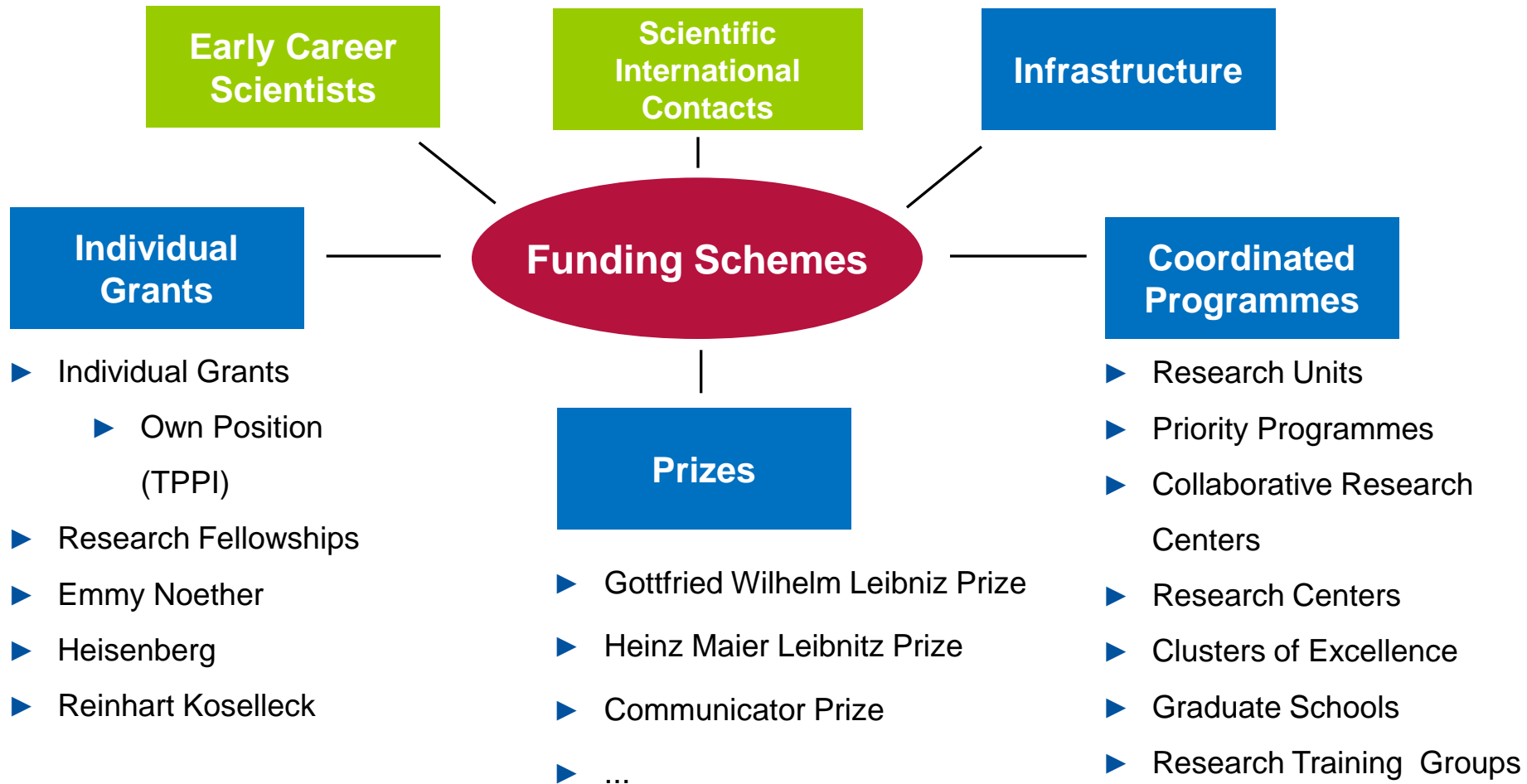
- ▶ German federal government (67,1%)
- ▶ German states (32.7%)
- ▶ Private sources (0.2%)\*

The DFG's 2013 budget totalled approx. **€2.7 billion**.

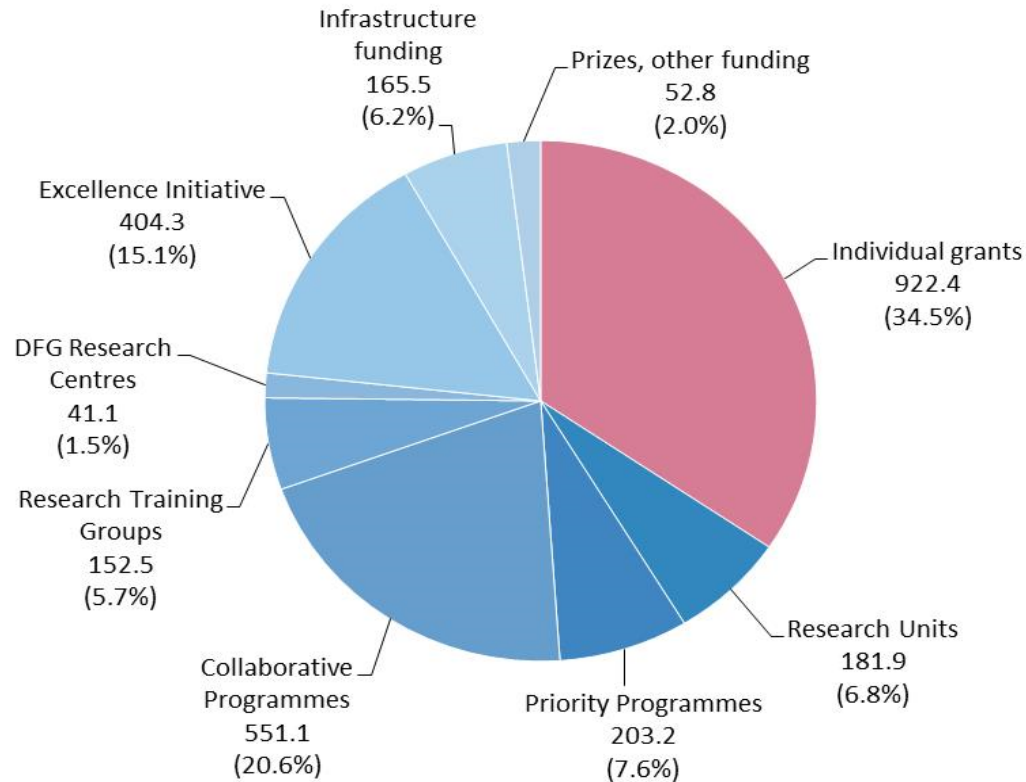


\* Figures refer to revenues in 2012

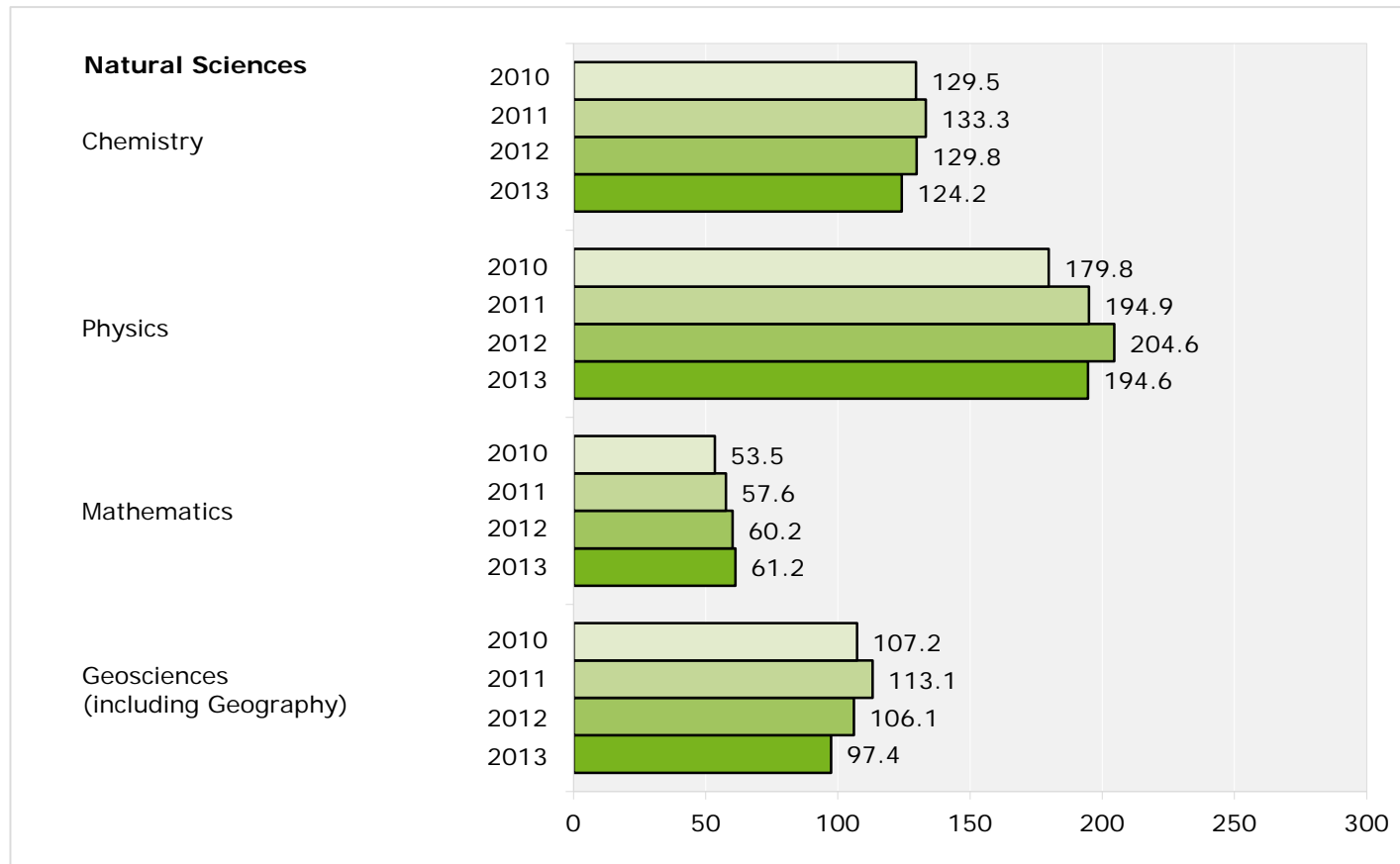
# Funding portfolio



# Amount of DFG funding awarded by program in 2012 (in Mio. Euros)

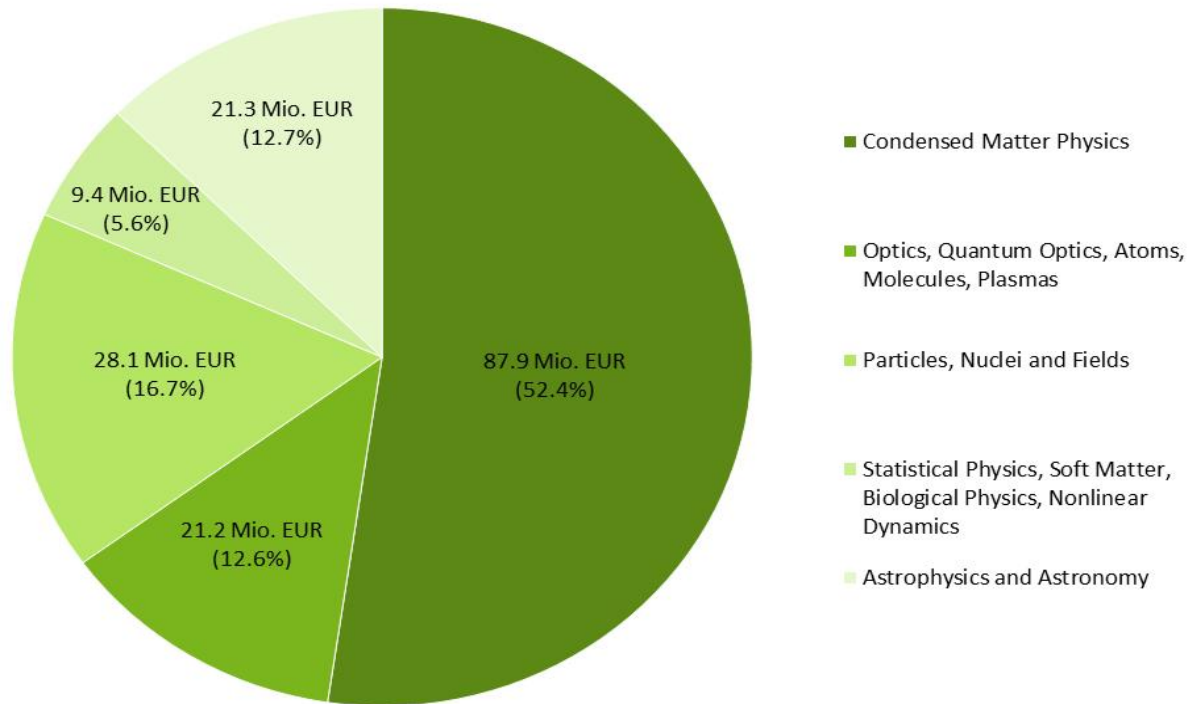


# Amount of research funding\* awarded by research area for each calendar year 2010 to 2013



\* Funding amounts refer to both new and ongoing projects in the individual grants and coordinated programmes that receive funding in the year shown.

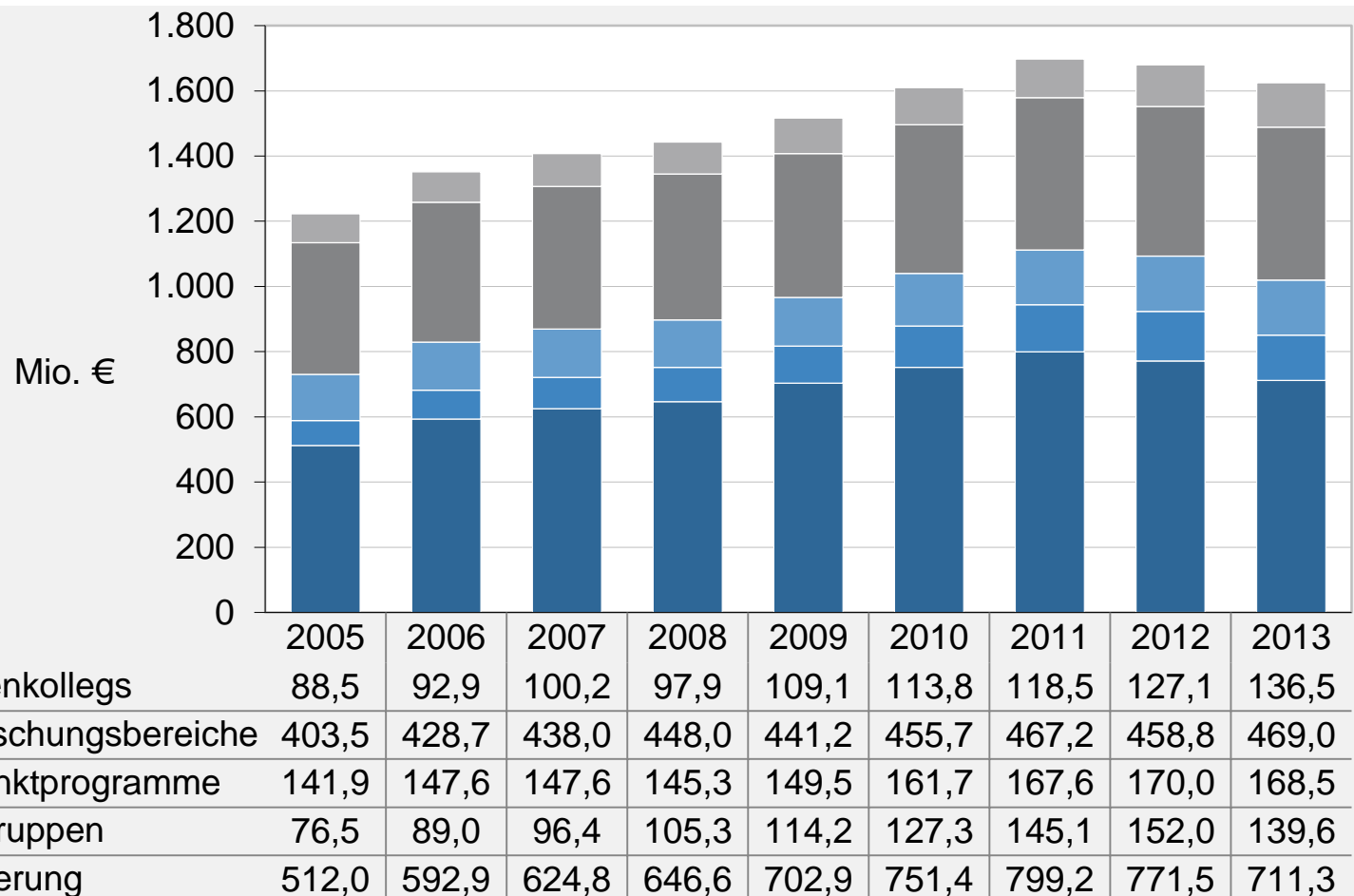
# Distribution of Funding Among Subject Areas (Physics)





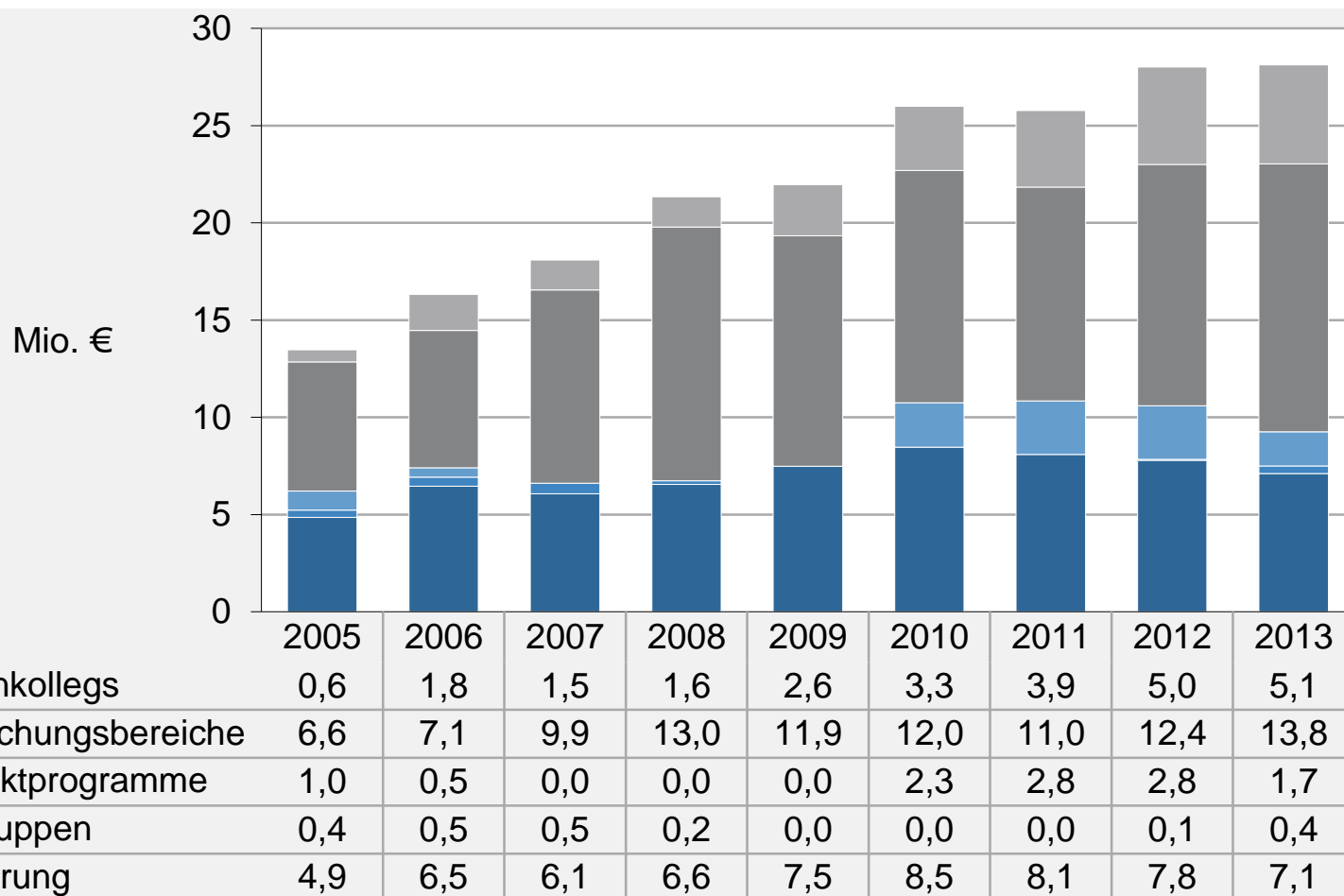
# Übersichten zum DFG-Fördergeschehen

Entwicklung der jahresbezogenen Bewilligungssummen nach Programmgruppe  
(in Mio. € - ohne Programmpauschalen)



# Bewilligungsvolumen je Förderprogramm (Fachkollegium)

Entwicklung der jahresbezogenen Bewilligungssummen nach Programmgruppen  
(in Mio. € - ohne Programmpauschalen)



# Collaborative Program funding

## **Some numbers in Nuclear and Particle Physics**

- ▶ 2 Clusters of Excellence
- ▶ 2 Graduate Schools
- ▶ 7 Collaborative Research Centers / Transregios
- ▶ 7 Graduate Research Training Groups
- ▶ 1 Research Unit
- ▶ 1 Priority Programme

# Individual Research Grants

## Purpose

To carry out a thematically defined research project within a specific time frame

## Eligibility

Researchers from all disciplines at German research institutions who have completed their scientific training (at universities – non-universities only under certain conditions)

**Duration** - Project-specific (usually three years)

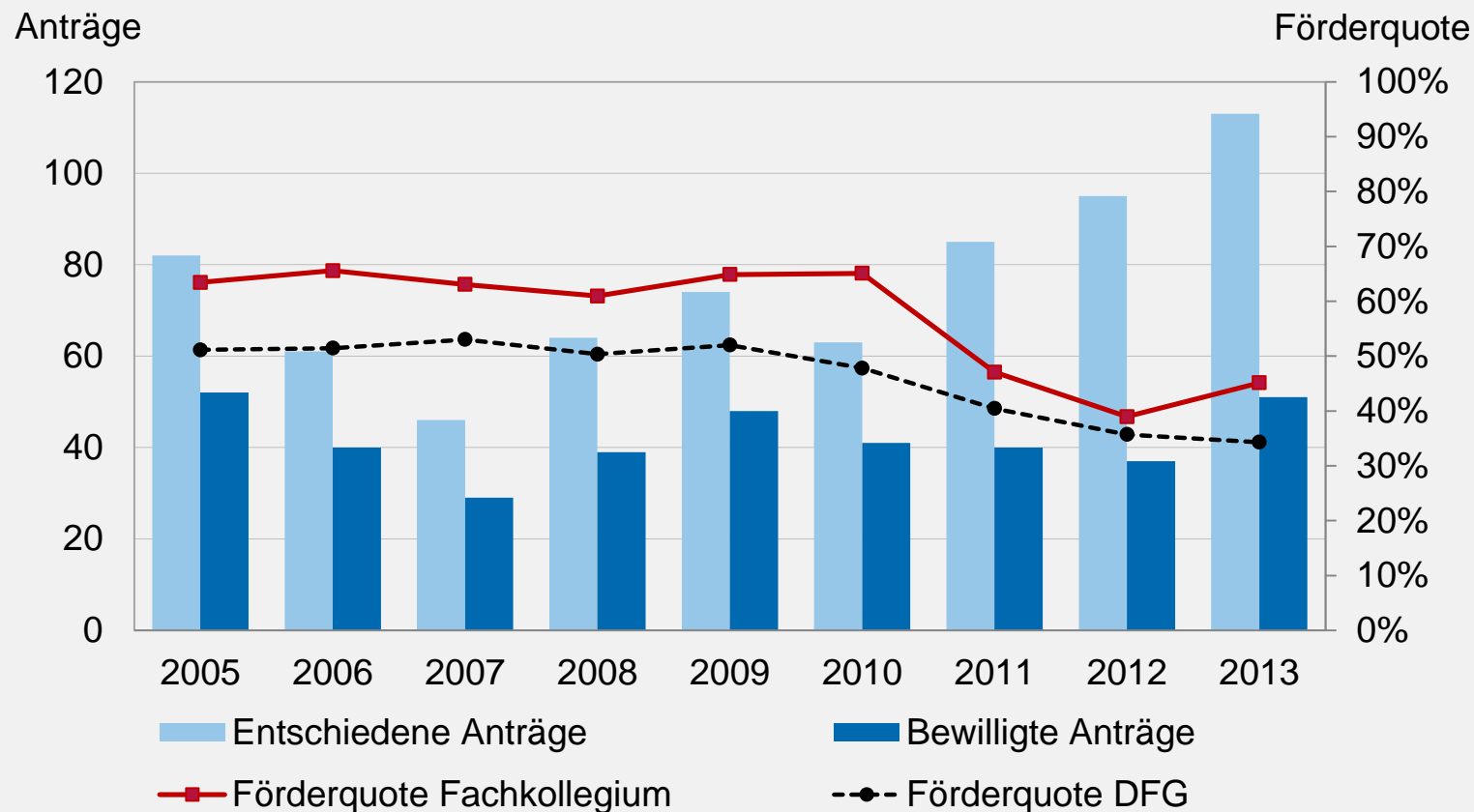
**Application** - at any time without special calls and deadlines

**What is funded** – personell (can include own position), consumables, equipment, travel, other needs for the project



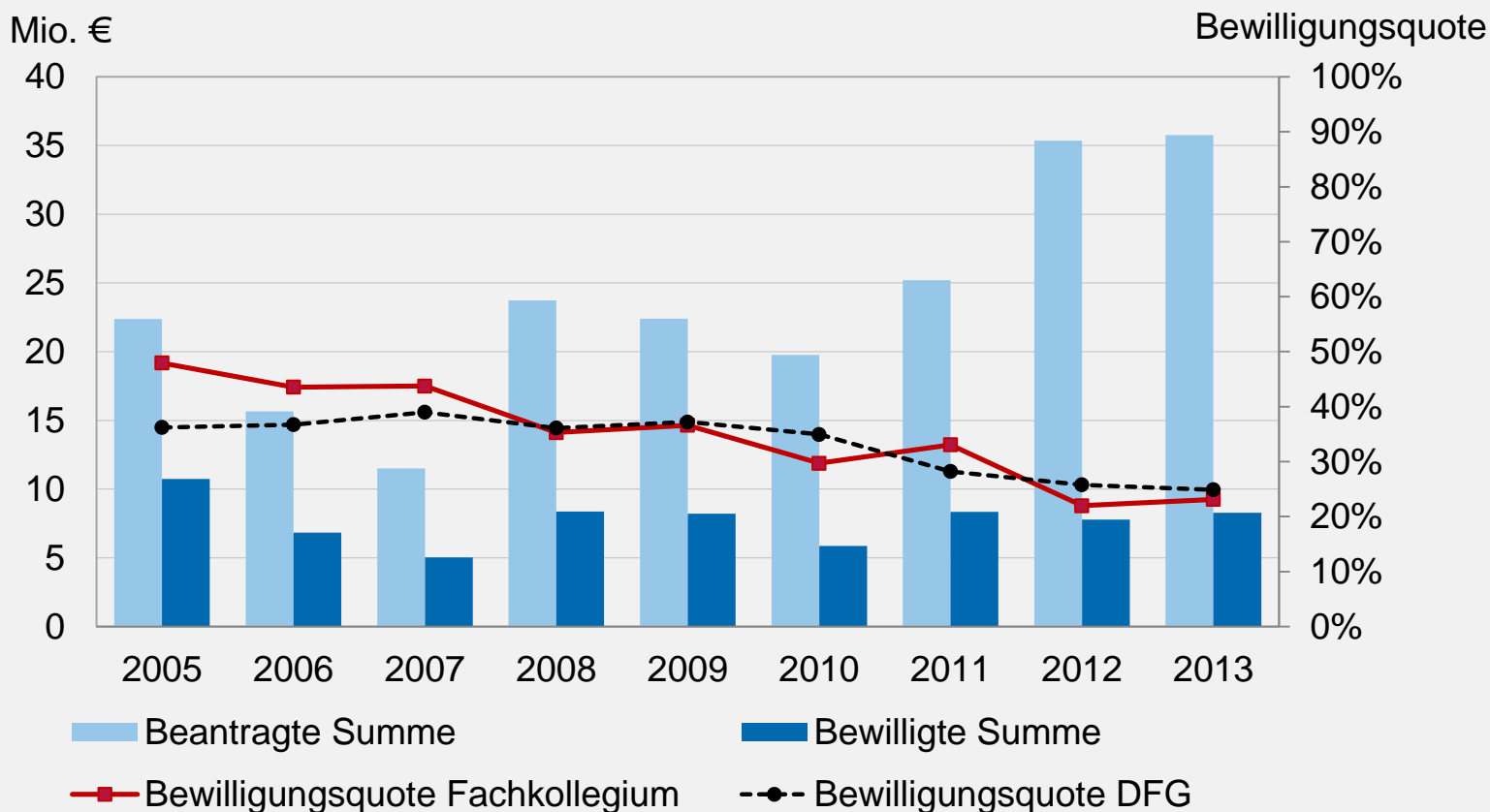
# Förderquoten in der Einzelförderung (Fachkollegium)

Entwicklung der Anzahl der entschiedenen und bewilligten Anträge sowie der Förderquoten in der Einzelförderung



# Bewilligungsquoten in der Einzelförderung (Fachkollegium)

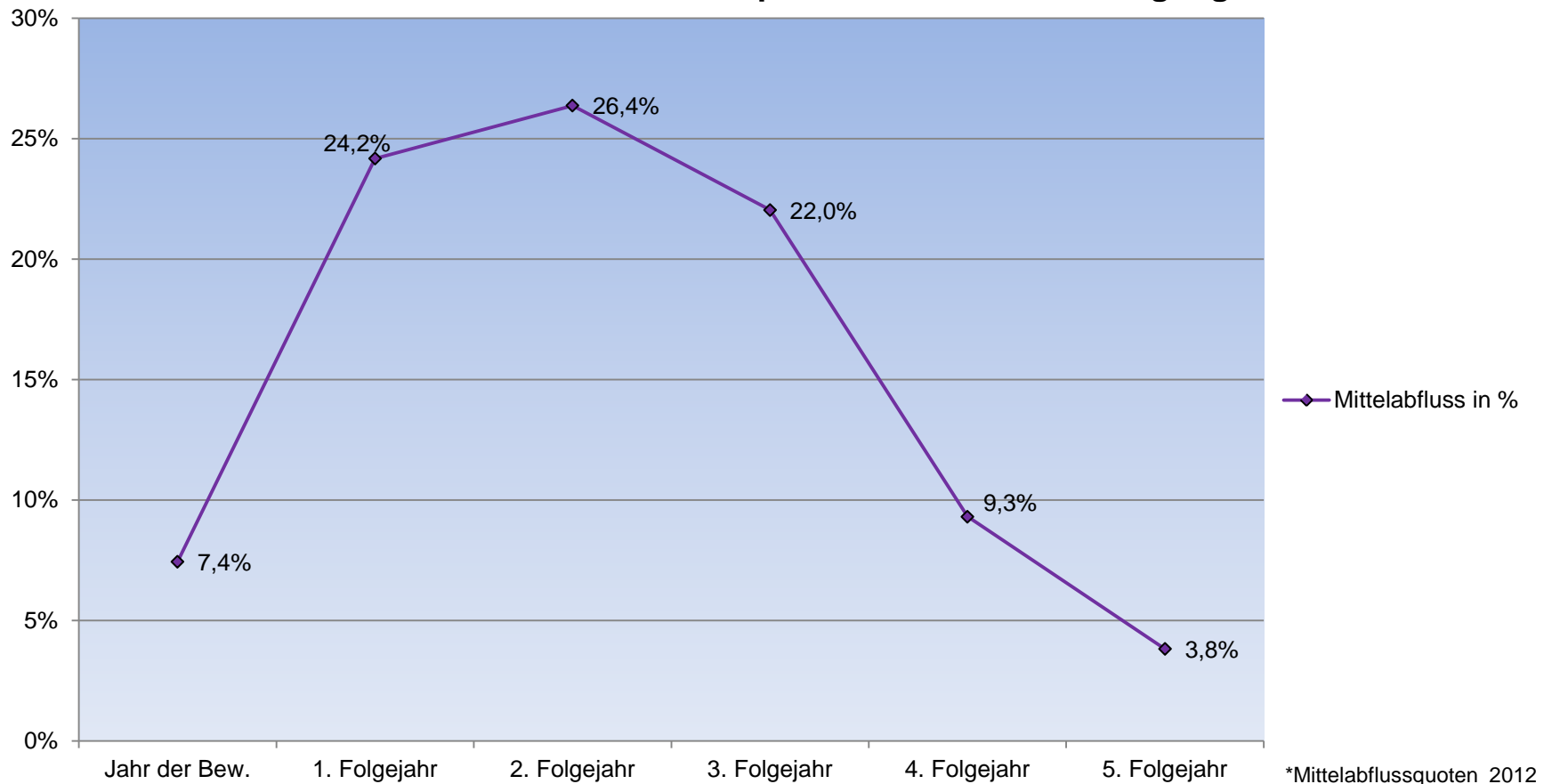
Entwicklung der Antrags- und Bewilligungssummen sowie der Bewilligungsquoten in der Einzelförderung  
(in Mio. € - ohne Programmpauschalen)



# Finanzen – Situation und Perspektive

## Rahmenbedingungen auf der Ausgabeseite

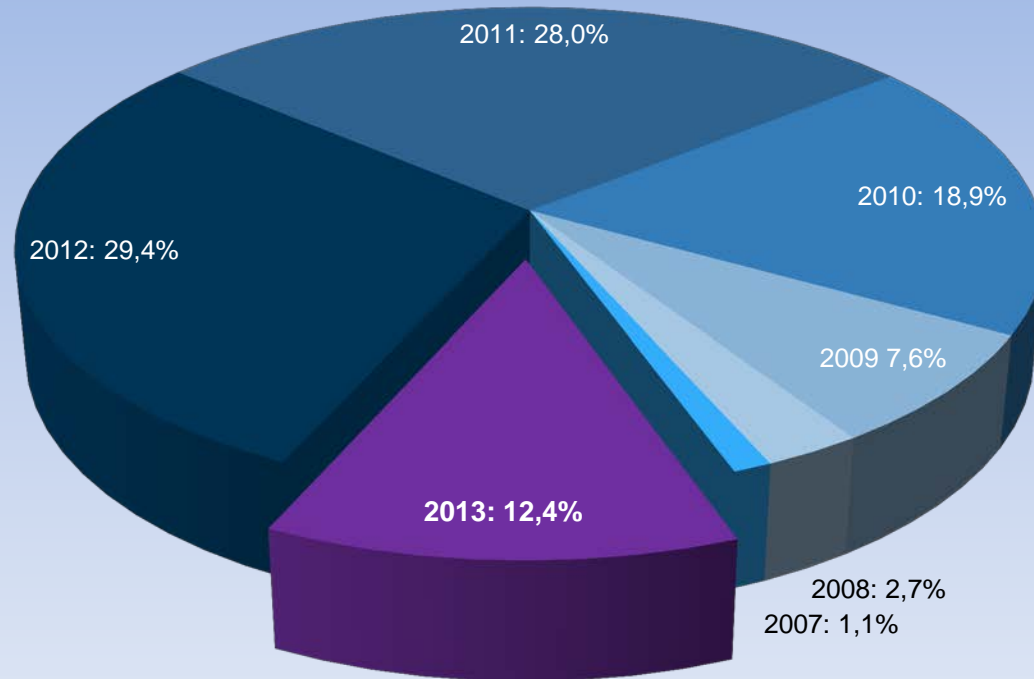
### Durchschnittlicher Mittelabfluss am Beispiel einer 3-Jahresbewilligung\*



# Finanzen – Situation und Perspektive

Rahmenbedingungen auf der Ausgabeseite

## Voraussichtliche Ausgabenanteile in 2013, resultierend aus Bewilligungen 2007 - 2013



Basis: Mittelabflussquoten 2012

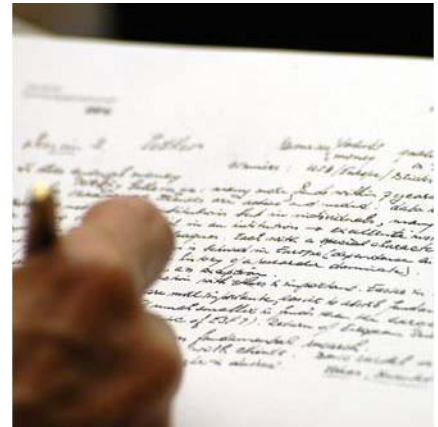


# What are the DFG's selection criteria?

## DFG reviewers judge proposals according to

- ▶ scientific quality of the project
- ▶ applicants' qualifications
- ▶ aims and work programme
- ▶ employment opportunities
- ▶ planned allocation of funding
- ▶ quality and added value of cooperation
- ▶ programme-specific criteria (structural impact on institution)

} in coordinated programmes



# Who ensures scientific merit?

## The DFG's review boards

These review boards

- ▶ are elected by **scientists and academics from their respective communities** (four years period)
- ▶ monitor the selection of reviewers, make recommendations and **comparatively assess all proposals and reviews in the individual grants programme**
- ▶ are involved in **panel reviews for coordinated programmes**
- ▶ ensure that comparable high-quality standards and criteria are applied equally in **all DFG programmes**

There are **48 DFG review boards** with **606 members**.  
Review board members act in an honorary capacity.

# DFG Review Boards

## Research and Scientific Disciplines

Natural Sciences (118 Members)		
RB-Nr.	Review Board / Subject Area	Subject Areas
301	Molecular Chemistry	☐
302	Chemical Solid State and Surface Research	☐
303	Physical and Theoretical Chemistry	☐
304	Analytical Chemistry, Method Development (Chemistry)	☐
305	Biological Chemistry and Food Chemistry	☐
306	Polymer Research	☐
307	Condensed Matter Physics 307-01 Experimental Condensed Matter Physics 307-02 Theoretical Condensed Matter Physics	☐
308	Optics, Quantum Optics and Physics of Atoms, Molecules and Plasmas 308-01 Optics, Quantum Optics, Atoms, Molecules, Plasmas	☐
309	Particles, Nuclei and Fields 309-01 Particles, Nuclei and Fields	☐
310	Statistical Physics, Soft Matter, Biological Physics, Nonlinear Dynamics 310-01 Statistical Physics, Soft Matter, Biological Physics, Nonlinear Dynamics	☐
311	Astrophysics and Astronomy 311-01 Astrophysics and Astronomy	☐
312	Mathematics	☐
313	Atmospheric Science and Oceanography	☐
314	Geology and Palaeontology	☐
315	Geophysics and Geodesy	☐
316	Geochemistry, Mineralogy and Crystallography	☐
317	Geography	☐
318	Water Research	☐

307	Condensed Matter Physics 307-01 Experimental Condensed Matter Physics 307-02 Theoretical Condensed Matter Physics	☐
308	Optics, Quantum Optics and Physics of Atoms, Molecules and Plasmas 308-01 Optics, Quantum Optics, Atoms, Molecules, Plasmas	☐
309	Particles, Nuclei and Fields 309-01 Particles, Nuclei and Fields	☐
310	Statistical Physics, Soft Matter, Biological Physics, Nonlinear Dynamics 310-01 Statistical Physics, Soft Matter, Biological Physics, Nonlinear Dynamics	☐
311	Astrophysics and Astronomy 311-01 Astrophysics and Astronomy	☐

# How are young researchers promoted?

## Through the Emmy Noether Programme

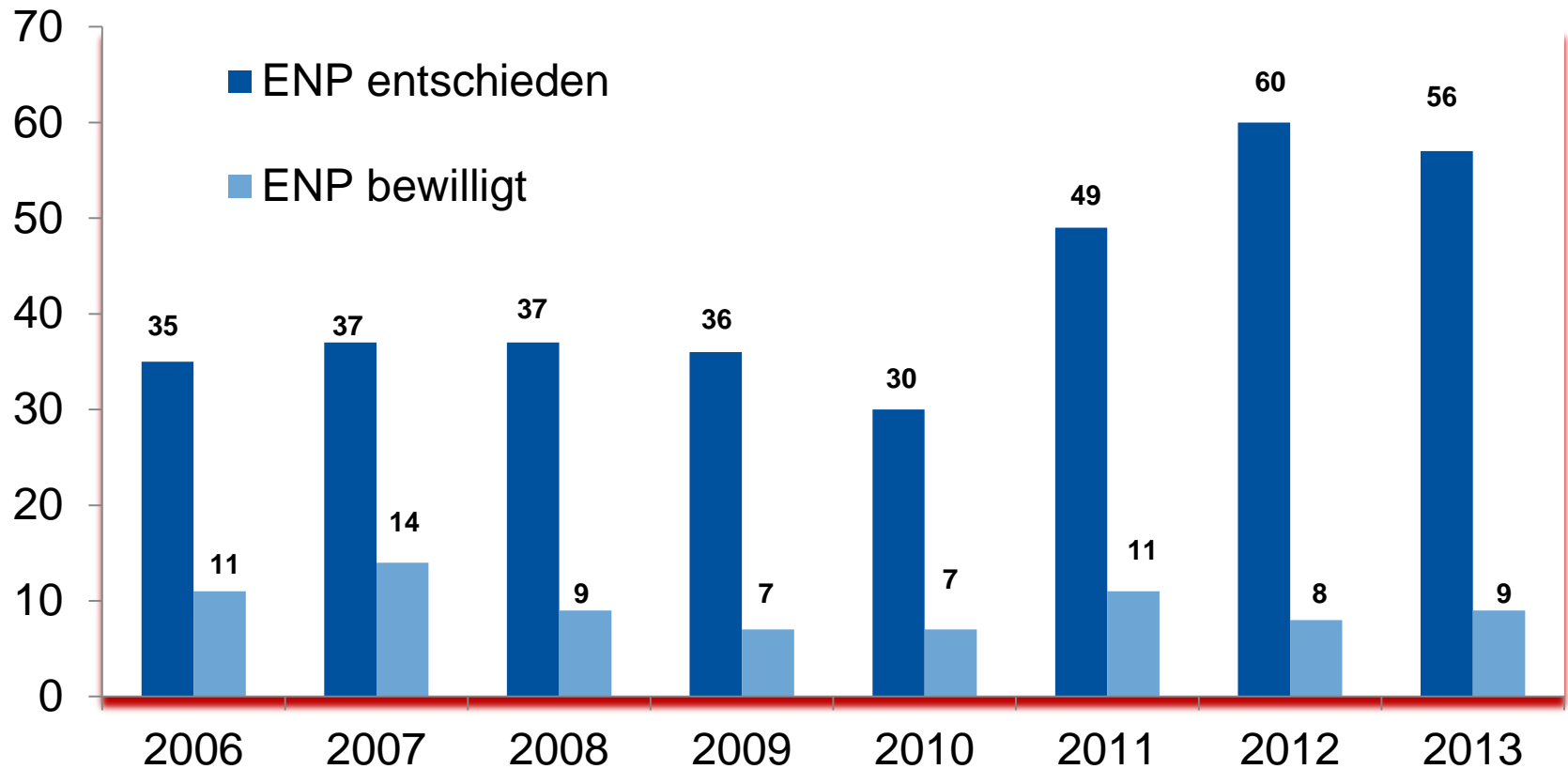
### The programme

- ▶ is aimed at **highly qualified postdoctoral researchers**
- ▶ enables researchers to qualify **for scientific leadership positions**, particularly as university teachers
- ▶ involves researchers **leading their own independent junior research groups** in Germany
- ▶ **generally runs for five years**
- ▶ **application possible up to for years after PhD**



# Emmy Noether-Anträge in den Physikfächern (307-311)

## 2006-2013 (Stand 5.12.2013)





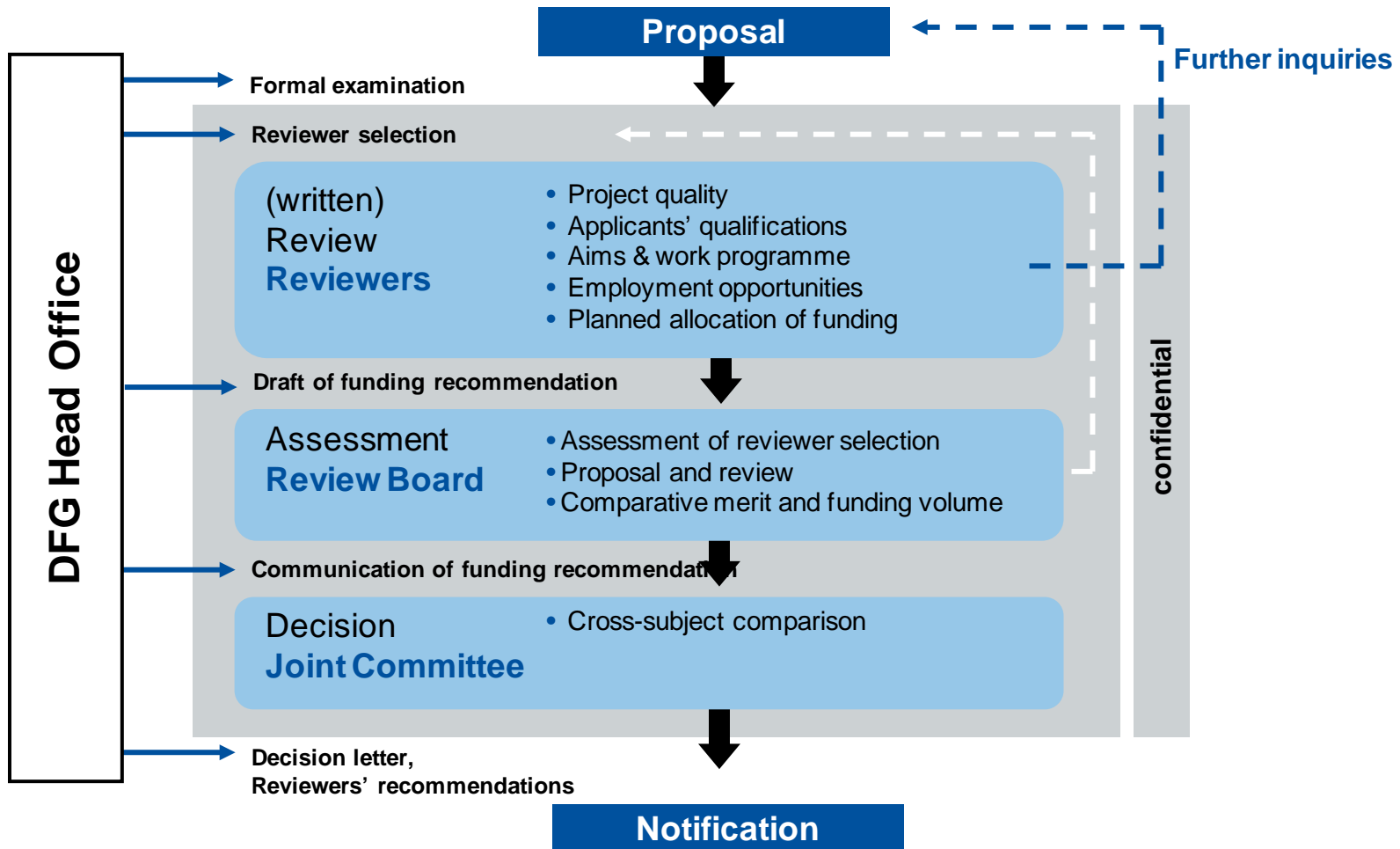
# Thank you for your attention!

## Further information:

- ▶ about DFG: <http://www.dfg.de>
- ▶ Ranking data: <http://www.dfg.de/foerderatlas>
- ▶ Funded projects: <http://www.dfg.de/gepris>
- ▶ German research facilities: <http://research-explorer.de>

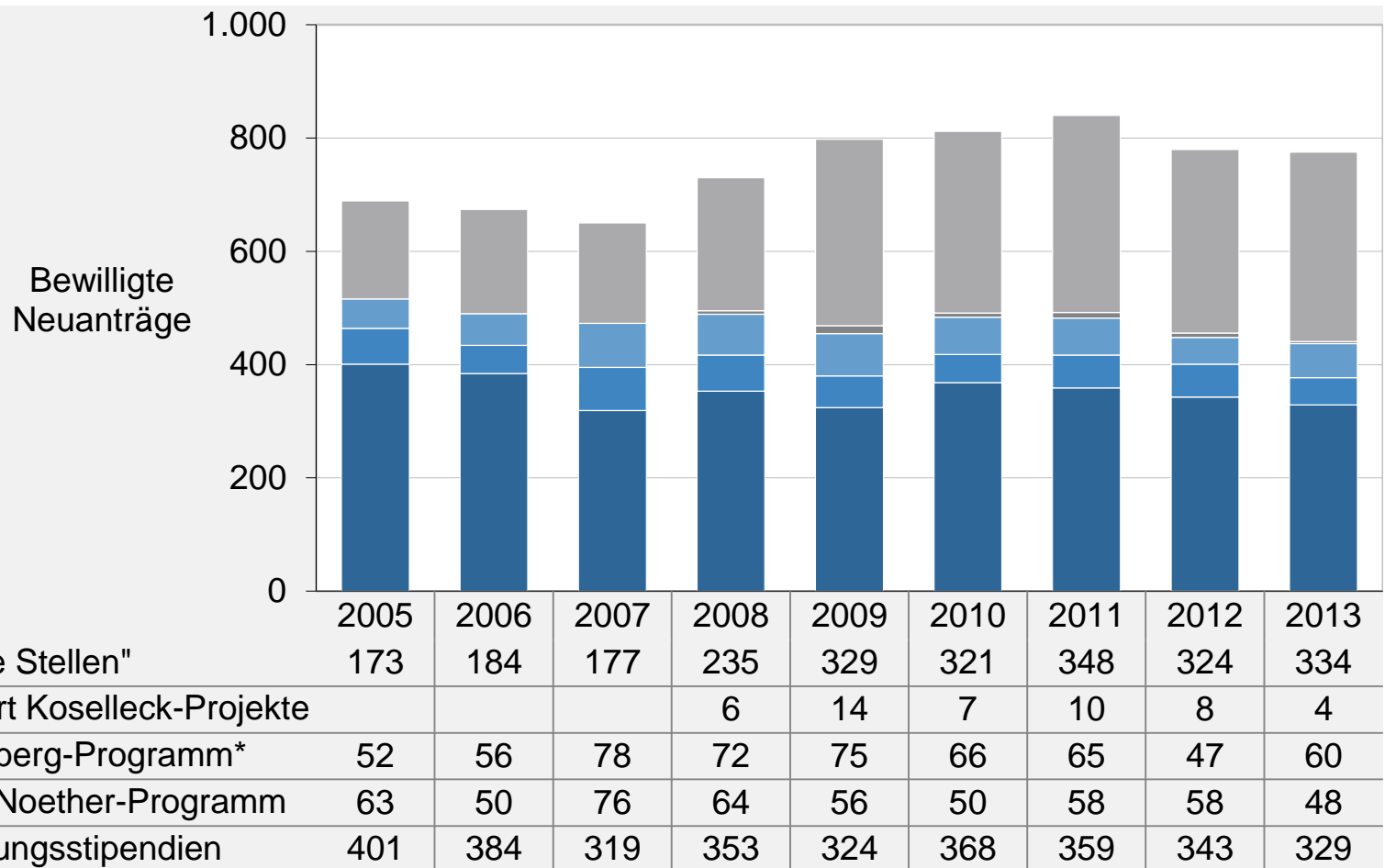
# How does the decision-making process work?

Individual grants involve reviewers, a review board & the Joint Committee



# Übersichten zum DFG-Fördergeschehen

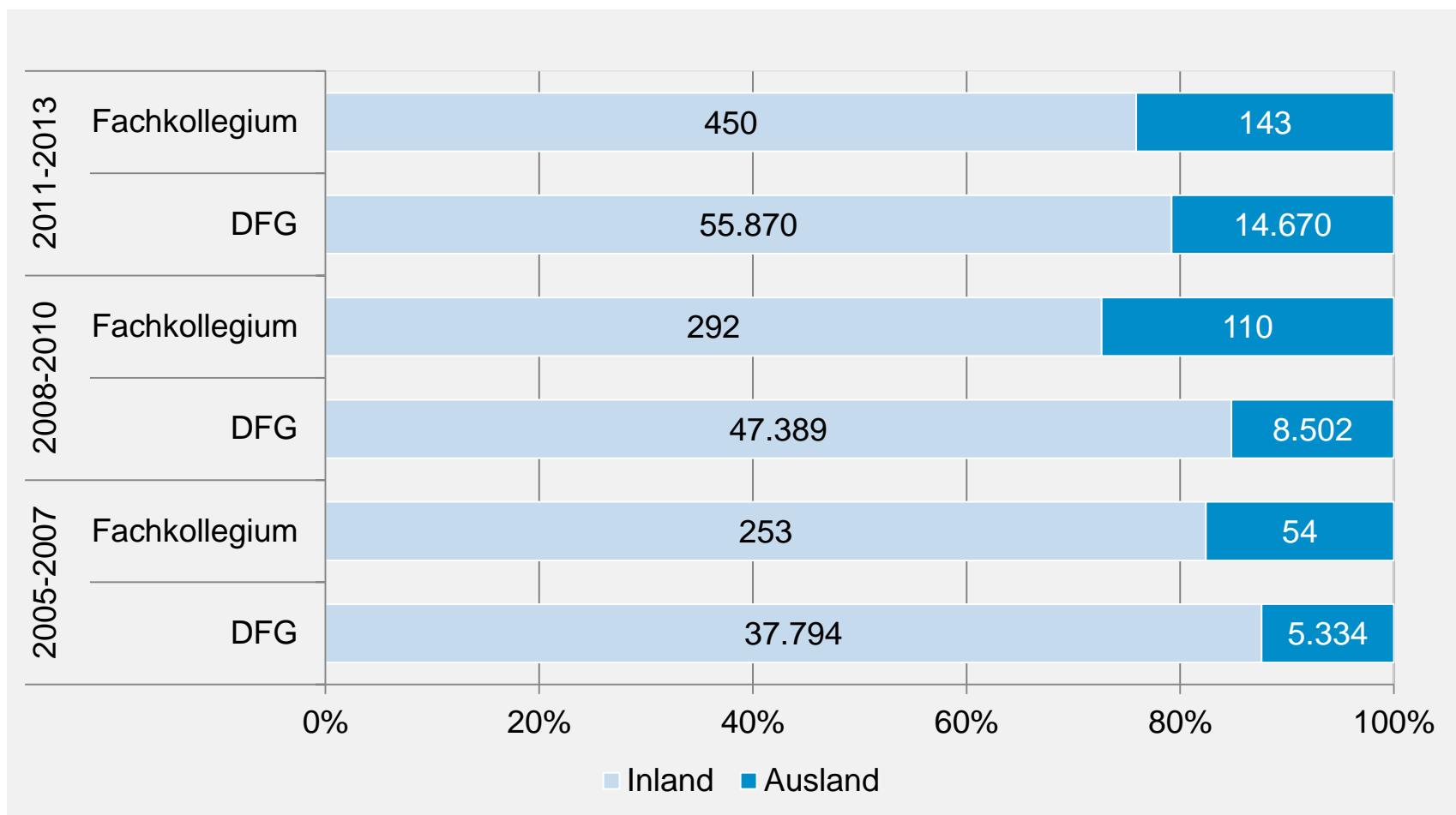
Entwicklung der Anzahl bewilligter Neuanträge in der „personenbezogenen Förderung“ nach Förderverfahren





# Begutachtende aus dem Ausland (Fachkollegium)

Entwicklung der Anzahl an Begutachtungen nach geographischer Zuordnung der Begutachtenden



# How are young researchers promoted?

## Through numerous custom-tailored funding programmes

These include

### ► **Heisenberg fellowship**, which

- is designed for prospective university teachers
- enables fellows to be employed at home or abroad
- is funded for a maximum period of five years



### ► **Heisenberg professorship**, which

- is aimed at younger university teachers who are eligible for professorships
- is limited to employment in Germany
- is funded for a maximum period of five years