

THE GERMAN COUNCIL OF SCIENCE AND HUMANITIES
PROVIDES ADVICE TO THE GERMAN FEDERAL GOVERNMENT
AND THE STATE GOVERNMENTS ON THE STRUCTURE AND
DEVELOPMENT OF HIGHER EDUCATION AND RESEARCH.

PRAGUE | JANUARY 2015

German Council of Science and Humanities Research Rating



european
social fund in the
czech republic



EUROPEAN UNION



MINISTRY OF EDUCATION,
YOUTH AND SPORTS



OP Education
for Competitiveness

INVESTMENTS IN EDUCATION DEVELOPMENT

Research Rating

Structure

- _ Science policy context
- _ Research Rating
 - _ Basics (objectives, methods)
 - _ Procedural steps
 - _ Organisation
- _ Conclusion

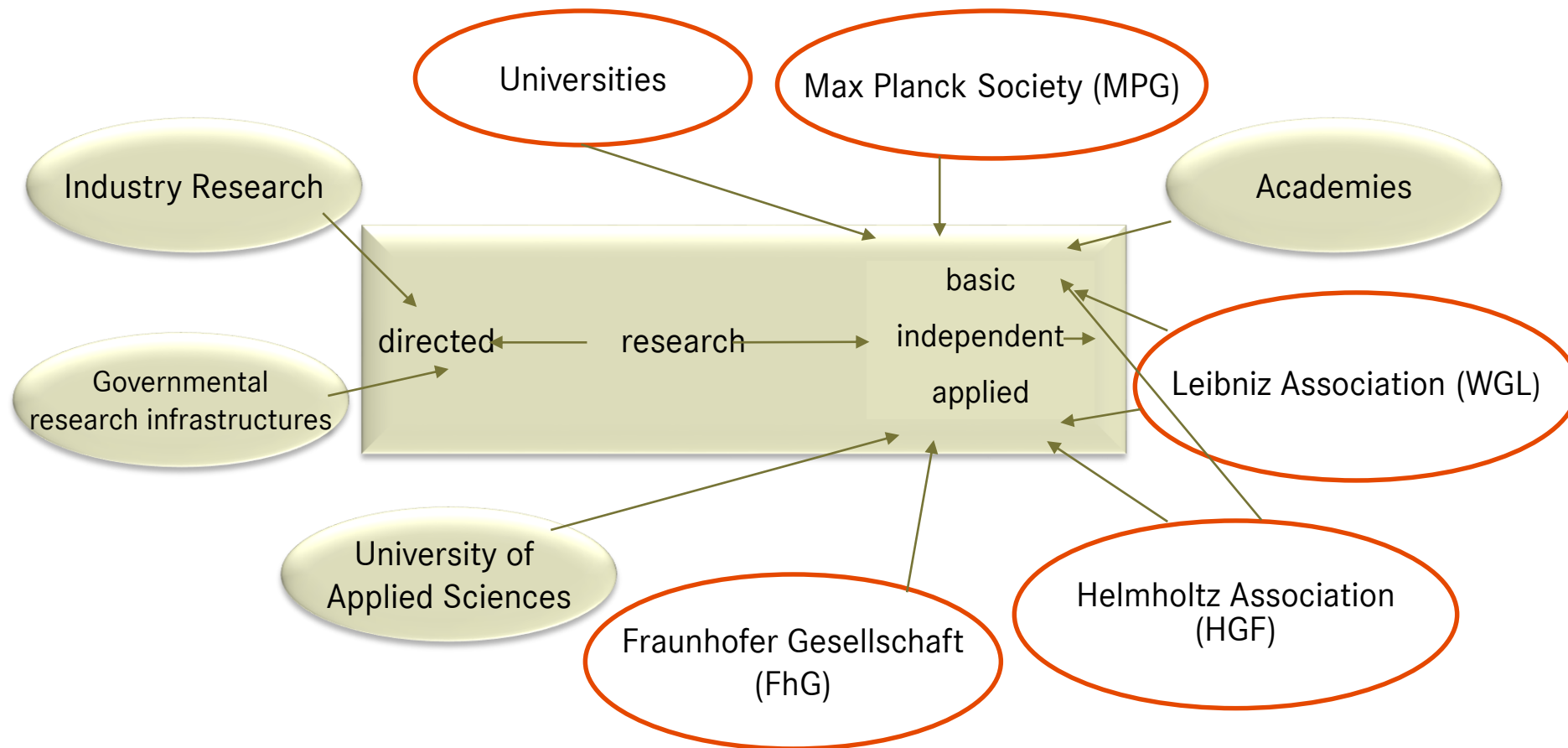
The German Academic System I: Basic Facts

129	Universities (including colleges of theology and colleges of education)
218	Universities of applied sciences
53	Art academies, music academies
<hr/>	
400	Total

<u>Sponsorship</u>	240	state-sponsored
	123	private, acknowledged by the state
	37	church-sponsored, acknowledged by the state

Source: Federal Statistical office /
German Rector's Conference
Last updated: October 2014

The German Academic System II: University and non-university research institutions according to focus of research



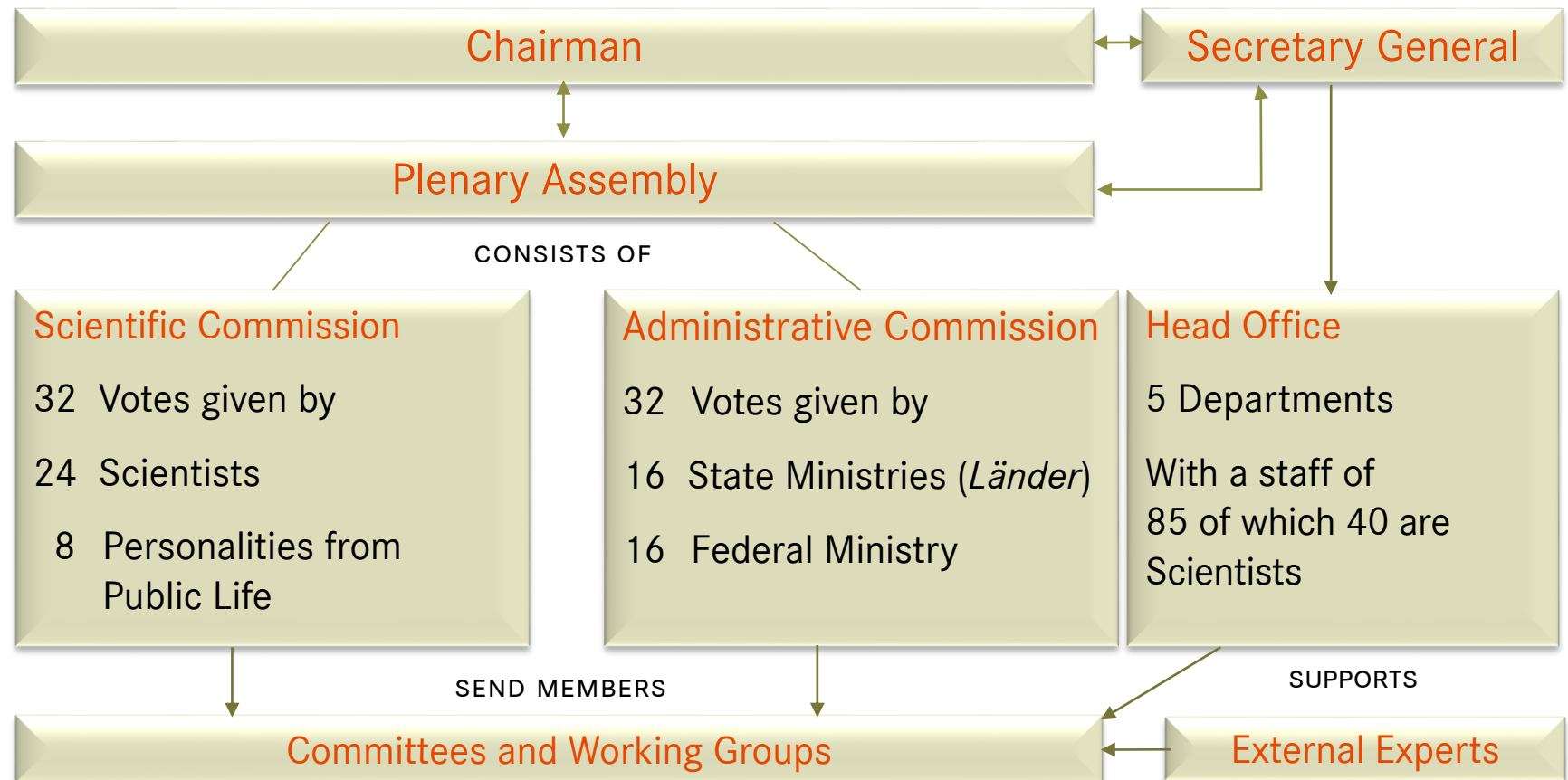
The German Academic System III: Research Funding



The German Council of Science and Humanities (Wissenschaftsrat) provides advice to the German federal government and the state (Länder) governments on the structure and development of higher education and research.

Administrative Agreement between the Federal Government and the States (Länder) on the establishment of a German Council of Science and Humanities from 5 September 1957 in the version of 1 January 2008

Organisational Structure



Permanent committees and working groups

Departments

Teaching Committee	Higher Education
Strategic Commission I ¹	Excellence Initiative
Research Committee	Research Policy
Continued development of research rating I ²	Work unit research rating
Evaluation Committee	Evaluation
Committee for research facilities Accreditation Committee	University Investments and Accreditation
Medicine Committee	Medicine

¹ Fixed-term programme „Excellence Initiative“ of the Joint Science Conference until 2017

² Fixed-term project under the responsibility of a steering committee which was finished 2013.

Research Rating

- _ Basics
- _ Subject-specific operationalization
- _ Data collection
- _ Assessment of the data and publication
- _ Organisation

Research Rating: Basic characteristics

Basics

- _ **Activity:** Comparative, subject-specific assessment of institutional research performance
- _ **Background:** Critical review of national and international rankings
- _ **Scope:** universities and non-university research institutions

Research Rating: Objectives

Basics

- **Support decision-makers** in universities, non-university research institutions and ministries
- Support development and self-monitoring of disciplines
- Provide **comparative information** on research quality and capacity
- **Increase transparency** and thereby promote competition
- Not linked to funding

Research Rating: Methods

BASICS

_ **Informed peer review:** one peer group for each discipline

_ **Data:** quantitative and qualitative data

_ **Multidimensional review:** No overall score

⇒ **Rating not Ranking**

Research Rating: Pilot Studies

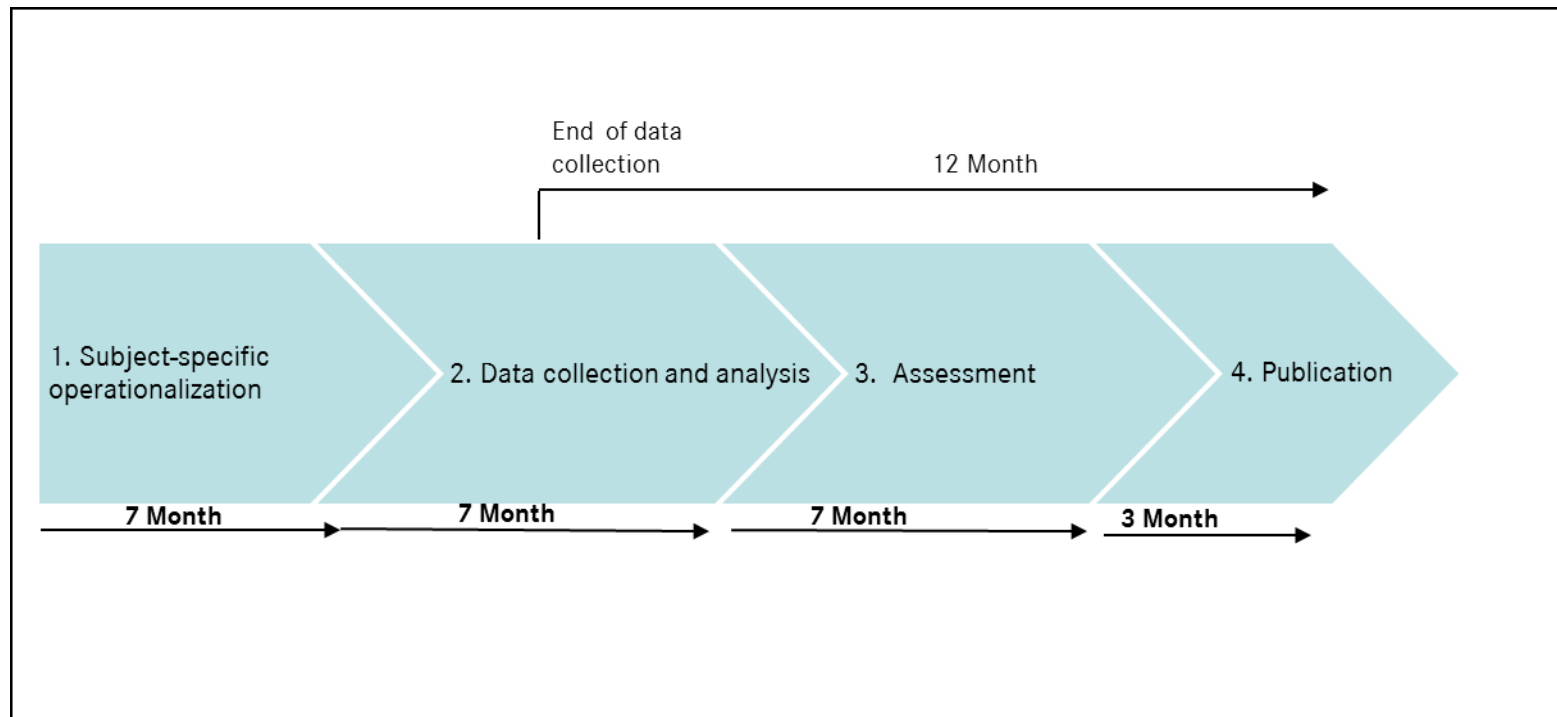
2003 - 2004	German Council of Science and Humanities developed methodology for a new research rating
2005	Council assigned steering group to conduct pilot study (to test and refine the methods for the research rating)
Oct 2005 – May 2008	1st pilot study : Chemistry (published December 2007) and Sociology (published April 2008)
Jan 2009 – Dec 2012	2nd pilot study : Electrical Engineering & Information Technology (Jan 09 – Jul 11) and English & American Studies (Jan 10 – Dec 12)
Oct 2013	Recommendations for the future of research rating

English and American Studies

Subfield	Criterion	I. Research Quality	II. Reputation	III. Facilitating Research	IV. Transfer to non-university recipients
English Linguistics		good	good	not satisfactory	not satisfactory
English literary and cultural studies		outstanding / very good	outstanding / very good	outstanding / very good	very good
American Studies		outstanding / very good	outstanding / very good	very good	very good / good
English didactics		good	satisfactory	good	very good / good

Research Rating: Procedural Steps

Basics



Research Rating

Subject-specific operationalization

Definition of the

- _ discipline and subfields
- _ criteria and data

Preparation of data collection (questionnaires)

Research Rating: Definition of subfields

Subject-specific operationalization

English and American Studies (ANAM):

- _ English Linguistics
- _ English Studies: Literature and Cultural Studies
- _ American Studies
- _ Didactics of English

⇒ Hornung, A., Khlavna, V. & Korte, B. (in press). Research Rating Anglistik/Amerikanistik of the German Council of Science and Humanities . In H.-D. Daniel, M. Ochsner & S.E. Hug (Eds.), Research Assessment in the Humanities – Towards Criteria and Procedures. Springer Verlag.

Research Rating

Performance Dimension and Criteria

Performance Dimension

Research

Promotion of young researchers

Knowledge Transfer

Criteria

I. Research Quality

II. Impact

III. Efficiency

IV. Promotion of young researchers

V. Knowledge Transfer

VI. Public Understanding of Science

Assessment matrix – Research Quality (Chemistry)

Criterion	Aspects of criterion	Data
Research Quality	1. Reception (relative)	quantitative: <ul style="list-style-type: none">_ Citations per paper_ Citation indices_ Number of Publications – Background information for judgement of Citation indicators
	2. Quality of Outputs	qualitative: <ul style="list-style-type: none">_ List of publications_ Research output other than publications: e.g. databases, software, patents
	3. Judgement by other peers	qualitative: <ul style="list-style-type: none">_ List of third-party funded projects_ List of important prizes and awards

Performance Dimension and Criteria

Performance Dimension	Criteria: CHEM, SOC, ETIT	Criteria: ANAM (Subfields)
Research	I. Research Quality (Research units)	I. Research Quality
	II. Impact	II. Reputation
	III. Efficiency	III. Facilitating Research
Promotion of young researchers	IV. Promotion of young researchers	
Knowledge Transfer	V. Knowledge Transfer	III. Transfer to Non-University Recipients
	VI. Public Understanding of Science (only CHEM, SOC)	

Subject-specific Operationalization

Research Quality

Chemistry:

- _ Citation Analysis

Electrical Engineering & Information Technology:

- _ Citation analysis of selected publications („best five“)

Sociology and English & American Studies:

- _ Reading of submitted exemplary publications
(3 publications á 50 pages)

-> All subjects: Lists of publications

Bibliometric Indicators

- _ Publication lists: provide information on the nature and content of publications and on the subject profile and publication strategy
- _ Publication figures: provide information about the quantity of publications; indication of research productivity
- _ Citation figures: provide information on the impact of publication; visibility and reputation of the authors

Lessons Learned I

Subject-specific operationalization

- _ „Research quality“ is of particular importance
- _ „Facilitating research“ proved to be a reliable criterion
- _ „Efficiency“ measures should be included
- _ „Knowledge Transfer“ is difficult to assess
- _ Knowledge of methodology and critical reflection on the potentials and risks associated with bibliometrics and patents are essential

Research Rating: Data Collection

Preparation

- _ Registration of participating institutions
- _ Nomination of „subject coordinators“
- _ Information events (ETIT, ANAM)

Research Rating: Data Collection

Steps

1. Publication data / patents
 2. Main data collection
 3. Analysis of data and creating data reports
- ⇒ Data were collected in online questionnaires
(except exemplary publications)

Research Rating: Data Collection

Principles

„**Work Done At**“: All scientists working at the respective institution within the survey period were assigned to that institution with their contributions achieved there during the survey period.

„**Current Potential**“: Only the scientists employed on the reporting date were assigned to the respective institution, with all their contributions delivered during the survey period.

⇒ **Survey Period**: subject-specific five or seven years

Research Rating: Data Collection

Partners

Bibliometric information

- _ iFQ (Institute for Research Information and Quality Assurance, Berlin)
- _ IWT (Institute for Science and Technology Studies, University Bielefeld)
- _ GESIS (German Social Science Infrastructure Services e.V.)

Patents

- _ Fraunhofer ISI (Institute for Systems and Innovation Research, Karlsruhe)

Online Questionnaires

- _ ZEM (Zentrum für Evaluation und Methoden, University Bonn)

Lessons Learned II

Data Collection

- _ Acceptance is indispensable
- _ Administrative support for the subject coordinator is needed
- _ Data have to be standardized in order to improve data quality and reduce the workload
(→ Research core data set)
- _ Taxonomy of all subject areas to be considered for research rating is needed

Research Rating: Assessment

Process

1. Independent preparation by two rapporteurs
 - _ Each unit has been rated by two rapporteurs
2. Plenary discussion of all ratings
 - _ ETIT + ANAM: Discussion of preliminary ratings in separate panels
3. Consistency check and final adoption by the entire review board
 - Supported by online-modules for assessment

English and American Studies

Rating Scale

5 = outstanding	5 - 4 = outstanding / very good
4 = very good	4 - 3 = very good / good
3 = good	3 - 2 = good / satisfactory
2 = satisfactory	2 - 1 = satisfactory / unsatisfactory
1 = not satisfactory	
	Not rateable
	Not published

Performance Dimension and Criteria

Performance Dimension	Criteria: CHEM, SOC, ETIT	Criteria: ANAM (Subfields)
Research	I. Research Quality (Research units)	I. Research Quality
	II. Impact	II. Reputation
	III. Efficiency	III. Facilitating Research
Promotion of young researchers	IV. Promotion of young researchers	
Knowledge Transfer	V. Knowledge Transfer	III. Transfer to Non-University Recipients
	VI. <i>Public Understanding of Science</i> (only CHEM, SOC)	

Criterion III: Facilitating Research

Aspects of criterion	Out- standing	Very good		Good		Satisfactory		Unsatisfactory		Not rateable
	5	5-4	4	4-3	3	3-2	2	2-1	1	
Third-party funds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Promoting young researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rating Facilitating Research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Annotations:

English and American Studies

Subfield	Criterion	I. Research Quality	II. Reputation	III. Facilitating Research	IV. Transfer to non-university recipients
English Linguistics		good	good	unsatisfactory	unsatisfactory
English literary and cultural studies		outstanding / very good	outstanding / very good	outstanding / very good	very good
American Studies		outstanding / very good	outstanding / very good	very good	very good / good
English didactics		good	satisfactory	good	very good / good

Lessons Learned III

Assessment process and results

- _ Reviewers have to be supported
- _ Units of assessment: subfields have to be preferred
- _ Multistage procedure has been proven
- _ Multidimensional approach is adequate: Results reflect the variety of performance profiles of different institutions
- _ International experts should be involved

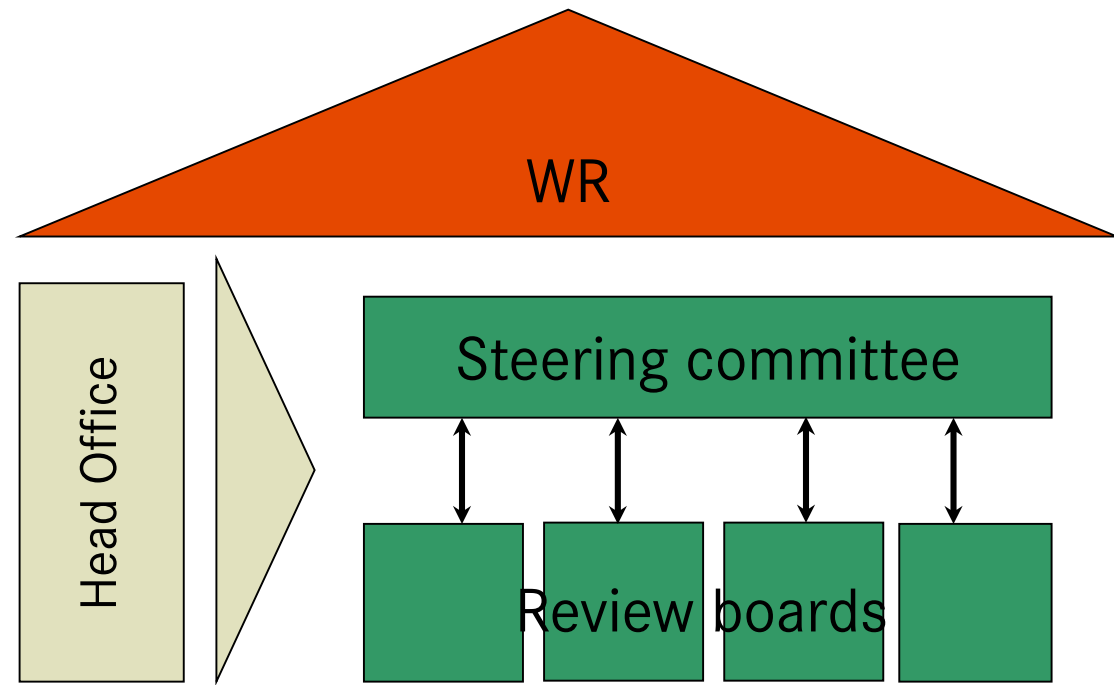
Research Rating: Organisation

Participants of the Pilot Studies

	ETIT	ANAM	CHEM	SOC
Institutions	47	60	77	57
Universities	31	60	57	54
Non-university research institutions	16	—	20	3
Professorships	737	356	1.038	376
Subfields/ Research Units	143	190	349	245
Number of defined subfields	4	4	10*	25*

Research Rating: Organisation

- WR: appoints steering committee and adopts reports
- Steering committee: appoints reviewers, publishes results, responsible for methodology
- Review boards: Discipline-specific operationalization and assessment



Research Rating: Organisation

Steering Committee

- _ 18 members; 13 guests
- _ met two times a year

Review Boards

- _ four boards with 66 reviewers and 16 external, special reviewers
- _ workload: 1,5 – 4 month (estimated by the reviewers)

Head Office

- _ work unit with a staff of five (extra staff during data analysis)

Research Rating: Conclusion

- Rating successfully conducted for Chemistry, Sociology, Electrical Engineering & Information Technology, English & American Studies
- High costs of pilot studies are justified
- 2013: Recommendation to
 - expand rating to cover all disciplinary fields
 - in five waves
 - with five disciplines each

Thank You

FOR YOUR ATTENTION AND INTEREST

Reserach Rating (partially in English):

<http://www.wissenschaftsrat.de/arbeitsbereiche-arbeitsprogramm/forschungsrating/dokumente.html>