The Definition of Quality in Science, Teaching and Management
- A Hierarchical Model at the University of Bonn

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Rheinische Friedrich - Wilhelms - Universität Bonn

- 31,000 students
- 5,000 foreign students
- 80 programs

- 7 faculties
- 530 professorships
- 3,000 scientists
- 2,000 employees
- 290 Mio € annual budget
An International Research University with Focus on:

- Life Sciences
- Medical Sciences
- Geo- and Environmental Sciences
- European and Asian Studies
- Communication and Information Sciences
- Chemistry
- Mathematics
- Economics
- Philosophy

- 7 Research Clusters (SFB) funded by the DFG
- 7 Research Groups and Clinical Research Groups
- 9 Graduate Schools

- 73 Mio € annual external funds

- 2 Nobel Prizes in the last 20 years
  - Wolfgang Paul - Physics 1989
  - Reinhard Selten - Economics 1994
Quality Criteria within the Structures of the University of Bonn

Science and Research
Teaching
Functions
Management

University
Faculties
Departments
Professorships / Scientists
Science and research:

- Prizes and Awards on the highest international level
  - Nobel Prize
  - Fields Medal
  - Leibniz Prize

- Research clusters (SFB), research groups, European research consortia

- Publications on the highest international level
  - Nature, Science, ...

- Books and monographies on the highest international level
  - translated into several languages

- Innovations
  - Patents
  - Licences
Quality Criteria

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Teaching:

- Excellence of students’ results on the national level
- Excellence of programs on an international level
- Excellence of alumni in their professional careers

Functions:

- Functions in international organisations (WHO, UN, etc.)
- Functions in the highest national organisations
  (President of the DFG, Senat of the DFG, National Academies, etc.)
- Membership in the highest national institutions
  (Ethics council, Economic advisory council, etc.)
Faculties - different criteria in different faculties due to differing "cultures" in science, research and teaching but...

...each faculty must define and state its own criteria
Quality Criteria

Example - Medical Faculty

Science and Research:

- All criteria on the level of the university
- Publications
  - Impactfactorsums
  - Impactfactorsums/ professorship
- National prizes and awards
- Amount of external funding

Teaching:

- All criteria on the level of the university
- Scoring of all teaching and lecturing by students – EVALON
- Comparison of multiple choice results in national medical exam
Example - Medical Faculty

Functions:

• All criteria on the level of the university
• Membership in national organisations (Cancer Research, VW Trust Fund, etc.)
• Presidency in international and national societies

Management:

• Definition of research focuses
• BONFOR program
• Success dependent research funding
# Quality Criteria within the Structures of the University

## Departments:

- Science and Research
- Teaching
- Functions
- Management

## Professorship:

- Science and Research
- Teaching
- Functions
- Management
The Value of Quality Criteria

Internally:

1) The necessity to allocate limited resources in an optimal way

2) The necessity to stimulate competition within all structures of the university

3) The necessity to stimulate new ideas, cooperations, networks within and beyond the university

4) The necessity to define criteria to reward high quality on all levels - personal, departmental, within faculties, between faculties, etc.
The value of Quality Criteria

Externally:

1) The possibility to improve fields of excellence for national and international competition

2) The possibility to support these fields of excellence in cases of national and international fund applications

3) The possibility to present these fields to governmental and industrial partnerships

4) The possibility to attract excellent scientists, teachers and students

5) The possibility to identify fields of excellence for own marketing purposes
The definition of quality is no guarantee for excellence, but surely a strategic measure on the way to reach excellence.