The Excellence Initiative and its Effect on the German University System

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It was around Christmas 2003 when for the first time the former German red and green government publicly mentioned that Germany needs at least one internationally recognized “elite university.” This started a discussion inside the federal government and between the federal and the state governments that finally lead to the call for proposals for the so-called Excellence Initiative in June of 2005. With the announcement of the winners for the grants of the second, and, for the time being, final round on October 19, 2007, the application and selection phase came to an end and the realization of the successful proposals is at the center of attention. Therefore the time is right to analyze and question the layout of the competition, its effects on the higher education system, and to examine the possible consequences of a continuation of the Excellence Initiative.

The political goal of the Excellence Initiative is to bring at least a few German universities up to the top group of international rankings such as “The Times Higher Education Supplement.” As a first result of the political discussion around the launch of the Initiative, there seems to be a new consensus in Germany that top-level research, including the necessary institutions and education, must be provided in Germany. In short, mentioning the word ‘elite’ or ‘elite university’ became permissible again in German politics after 1968. At the same time, whether the high expectations that are associated with the Excellence Initiative can be realized is questionable.

The Layout of the Excellence Initiative

After one and a half years of troublesome discussions, a compromise was reached between federal and state governments in June 2005 and the Excellence Initiative was started.¹ The official goal was set as strengthening the sciences

and research in the long-run and improving its international visibility.\(^2\) For this the federal government and the states will provide a total of 1.9 billion Euros\(^3\) over six years divided into three funding lines:

1. **Graduate Schools** to promote young researchers,
2. **Clusters of Excellence** to foster international, top-level research in a specific field at one university,
3. **Institutional Strategies** to promote top-level university research.

Budgetary provisions have been made for two funding-rounds that started in both November 2006 and 2007. Proposals could only be submitted by universities, although cooperation with a proposed project by a German, traditionally strong non-university research institution was considered favorable. In a two-tier selection procedure, drafts and proposals had to be submitted which were evaluated by an international peer group. The organization and implementation of the Excellence Initiative was laid in the hands of the Deutsche Forschungsgemeinschaft\(^4\) (DFG) and the Wissenschaftsrats\(^5\) (WR). The two institutions are highly respected in the scientific community and are considered to be minimally influenced by politics.

In total 39 graduate schools have been funded with an annual average of 1.2 million Euros for five years and 37 Clusters of Excellence with an average of 6.4 million Euros annually. For the third funding line only those universities qualified that successfully applied for at least one graduate school and one cluster. After the selection phase of the first and second round, nine universities are now allowed to be called “Eliteuni” and receive an average of 12.6 million Euros annually for five years. The grants include an overhead of 20 percent to cover indirect costs.

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\(^3\) The federal government comes up with 75 percent and the states with 25 percent of the amount.

\(^4\) The DFG (German Science Foundation) is somewhat the equivalent to the U.S. National Science Foundation.

\(^5\) The Science Council is an advisory body to the Federal Government and the state governments.
Graduate Schools

The establishment of the graduate schools is of particular importance for the longtime development of Germany’s higher education system and its international appeal. Here, young scholars shall find an excellent research and learning environment in the framework of a structured Ph.D. program. Graduate schools are supposed to offer the infrastructure that is so often lacking in German doctoral education. The latter, to date, is still dominated by an individual doctoral education that is characterized by the close relationship of the student with a single professor (the so-called ‘Doktorvater’). In the future this is supposed to change and the mentoring and supervision in a structured program will be provided by an advisory committee. This way the graduate schools will also be beneficial for the internationalization of German academia since the quality, timeframe, and especially the application and admission procedure will become much more transparent for international students.

Clusters of Excellence

The DFG defines clusters of excellence as university locations that establish internationally visible competitive research and training facilities, thereby enhancing scientific networking and cooperation among the participating institutions. The clusters must be embedded in the strategic development plan of their university and shape the profile of the latter. They shall also provide excellent learning and career opportunities for young scholars. With the clusters of excellence together with the graduate schools and the institutional strategy it is the political goal to strengthen Germany as a prime science location and improve its international competitiveness.6

Institutional Strategies to Promote Top-level University Research

With this funding line financing becomes available for the institutional development strategy of universities that seek to become prime research locations in Germany. Success in this funding line is, in a way, the accolade in

the excellence initiative and universities that are rewarded are therefore (and because of the awkward name for the funding line) often called ‘elite universities’ by the public. Altogether nine universities were able to formulate convincing, tailor-made institutional strategies to become competitive with strong international research universities in the long-run.\(^7\)

**Short-term Effects of the Excellence Initiative**

Already the announcement of the Excellence Initiative and the fact that additional funding was on the horizon has released extra forces inside the universities and the state authorities responsible for higher education. Scientists and university leaders in the last two years have mobilized extra efforts to sharpen the profile of their institutions. They are seeking new cooperation within and outside the universities, especially with the non-university research institutions, to combine their strength and interest in proposals for graduate schools and clusters of excellence. Even in the third funding line some proposals make suggestions as to how to break up the stove-piping of the German research system by making the institutional barriers between university and non-university research more permeable.

The Excellence Initiative as unveiled to the German public and the international scientific community showed that German universities are not as homogeneous in quality as it was previously propagated by officials for so long. Instead the heterogeneity between universities has become more public thanks to the increase in media attention for these issues and it will expand through the implementation of the successful proposals. In total, the intensity of competition between but also within universities increased dramatically in only a brief period of time thanks to the initiative. German universities increasingly turn out to be more entrepreneurial and those who were successful in the initiative also become more visible and attractive for international cooperation.

\(^7\) Originally it was planned to support up to ten universities’ institutional strategies but the peers were convinced only by the proposals of the two universities in Munich and the one in Karlsruhe in the first round and of the universities of Aachen, Heidelberg, Freiburg, Konstanz, Göttingen and the Freie Universität Berlin in the second.
Long-term External Effects of the Excellence Initiative

As a result of the better financing of university research and the expansion of already existing centers of excellence, the international competitiveness of German research universities will increase. Nevertheless it would be exaggerated to expect marvelous things from this initiative, in which, for example, a relatively large and very successful Ludwig-Maximilians-Universität in Munich with an annual budget of roughly 380 million Euros in 2004 will receive an extra 38 million Euros annually for the next five years.8

With the long-awaited introduction of overhead financing in Germany of 20 percent of direct costs, universities now receive a new source of funding that can improve their strategic institutional capacity. Foremost, strong research universities can ease the conflict between their fixed-base-finance, which they receive from their state, and performance dependent third-party funding that typically comes from mostly federal-funded agencies such as the DFG and until recently covered only direct costs. The missing coverage of indirect cost for research projects did limit the growth of research intensive universities and caused internal conflicts about the allocation of the base finances.

The Excellence Initiative in general and the introduction of overhead financing in particular will increase the differentiation in the German university system. On the one side internationally visible research universities will appear, while on the other side universities will focus more on tertiary education for the local job market. At the same time, the already existing differences in research intensity and the uneven geographical allocation of research universities will be reinforced. Figure 1 (see page 9) shows the concentration of successful projects of the Excellence Initiative in the southwest of Germany.9 Six out of nine “elite-universities” are located in Baden-Württemberg or Bavaria. Besides the state of Baden-Württemberg there are three major agglomerations with especially high science intensity in Germany. Out of 76 projects receiving funding through the first and second funding line of the Excellence Initiative, eleven are located in

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8 Annual budget without the Medical School.
9 In Baden-Württemberg alone 16 out of 76 funded projects from the first and second funding line and four out of nine “Eliteunis” are located.
Berlin, eight in the Aachen-Bonn-Cologne triangle, and seven in Munich. It seems that in particular in the southwest the longstanding funding advantages and the continued development over 60 years gave those academic institutions an advantage, especially over those universities in the 'Neue Länder' that were founded or completely reorganized seventeen years ago.

**Long-term Internal Effects of the Excellence Initiative**

After the end of the first two funding rounds of the Excellence Initiative in 2011-2012 the budgetary priorities inside a university will change severely. In their proposals the universities had to guarantee the sustainability of their endeavor so that those parts of the university that were not successful or did not take part in the contest have to procure the additional funding for the centers of excellence. Also, until-recently marginal criteria such as a professional management of an institution, an effective knowledge transfer, performance-based financing or gender-mainstreaming will gain a more important role. In summary, the Excellence Initiative will change the values inside the scientific community and will give a boost in Germany to the ‘entrepreneurial university’ compared to the university that is governed more like a government agency.

**A Political Review of the Excellence Initiative**

The simple fact that it was possible to start this initiative by bringing together the interests of the federal government and the states as well as those of the different political parties was warmly welcomed by leaders of the scientific community. But after the competition for funding ended and the winners of the second round were announced on October 19, it is also necessary to point at some flaws in the layout of this initiative. In addition some realism might have returned to some politicians that already saw German universities playing in the U.S. Ivy League. The Excellence Initiative by itself will not be enough to bring one or even more German universities with a broader range of disciplines to that level. The fact that the 1.9 billion Euros are spread to a total of 36 universities over five years makes this obvious.
The singularity of the initiative is a problem too. Through the graduate schools and clusters of excellence a large number of young scholars will be drawn into academia, which will have the same number of professorships after the end of the initiative. In disciplines with a lack of outside-academia job opportunities this could cause a waste of human capital. If the Lisbon process, which seeks to make the European Union the most competitive knowledge-based society in the world, is taken seriously, the financing of German universities must be sustainable over the long term. One or two rounds of this initiative will cause waves but will not lift the sea level.

The two funding rounds spending a total of 1.9 billion Euros will hardly bring Germany closer to the 3 percent of GNP benchmark for R&D spending set by the Lisbon-Process. The relatively high German growth rates over the last two years have somewhat neutralized the additional expenditure. This alone should call for another round of the Excellence Initiative. In addition, this is necessary because in basic research it is not reasonable when financing for large projects is available only twice for two successive years. Instead it would be more appropriate to provide for a continuous and foreseeable funding source to finance graduate schools and new research clusters. The new, annually funded projects may then even be smaller than in the first funding rounds.

Concerning the peer-reviewing process itself, it was important that this was organized by the Deutsche Forschungsgemeinschaft, which is part of the scientific community. Nevertheless it is worth reflecting on the rules of the selection procedure. Sometimes in the first two funding rounds it seemed that the peers acted differently to the announcements of the DFG, WR and political leaders.

One of the major flaws in German university research is the outsourcing of top-level research groups in non-university research institutions. Although an improved cooperation between the two is asked for in the selection process, there are little incentives for a non-university research institution to reintegrate in a university. In addition, the Excellence Initiative means another appreciation of research relative to teaching in the disorder of the German federal system that puts higher education in the hands of the states while the responsibilities for
basic research is foremost a matter of the federal government. Therefore it is up to the states now to establish their own programs to promote excellence in teaching in a country in which tuition may not exceed 1,000 Euros per year.

Finally, with all of those positive things one can say about the Excellence Initiative one has to recognize that it did not touch - and probably could not touch - the major problem of the German university system. At the bottom line, the Excellence Initiative provides better funding for research intensive universities that keep suffering under an often unfit legal and institutional framework. A consistent deregulation of universities has not happened yet, although some states recently made some progress. Such a deregulation would be complementary with the additional funding and urgently needed if German universities want to catch up with the best universities world-wide.
Förderentscheidungen in der Exzellenzinitiative

Bewilligungen nach Förderlinien

I. Förderlinie: Graduiertenschulen (GSC) zur Förderung des wissenschaftlichen Nachwuchses

II. Förderlinie: Exzellenzcluster (EXC) zur Förderung der Spitzenforschung

III. Förderlinie: Zukunftskonzepte (ZUK) zum projektbezogenen Ausbau der universitären Spitzenforschung

Bewilligungen nach Wissenschaftsbereichen je Förderlinie

Graduiertenschulen
- Basis: 223,7 Mio. € für insg. 39 GSC
- 26,4% Geistes- und Sozialwissenschaften
- 29,9% Lebenswissenschaften
- 21,9% Naturwissenschaften
- 15,8% Ingenieurwissenschaften
- 6,0% Hochschulweit

Exzellenzcluster
- Basis: 1.179,8 Mio. € für insg. 37 EXC
- 16,8% Geistes- und Sozialwissenschaften
- 31,2% Lebenswissenschaften
- 25,2% Naturwissenschaften
- 26,8% Ingenieurwissenschaften

Zukunftskonzepte
- Basis: 565,6 Mio. € für insg. 9 ZUK
- 100,0% Zukunftskonzepte

* Hinweis: Alle Zukunftskonzepte sind hochschulweit ausgerichtet.
Die bewilligten Projekte im Einzelnen
(in alphabetischer Reihenfolge der jeweiligen Sprecherhochschulen)

1. Aachen TH
   Aachen Institute for Advanced Studies in Computational Engineering Science

2. Aachen TH
   Ultra High-Speed Mobile Communication

3. Aachen TH
   Integrative Production Technology for High-Wage Countries

4. Aachen TH
   Tailor-Made Fuels from Biomass

5. Aachen TH
   RWTH 2020: Meeting Global Challenges

6. Bayreuth U
   Bamberg International Graduate School of African Studies

7. Berlin FU
   Graduate School of North American Studies

8. Berlin FU
   Muslim Cultures and Societies: Unity and Diversity

9. Berlin FU
   Friedrich Schlegel Graduate School of Literary Studies

10. Berlin FU zusammen mit Berlin HU*
    Topoi. The Formation and Transformation of Space and Knowledge in Ancient Civilizations

11. Berlin FU
    Languages of Emotion

12. Berlin FU
    Freie Universität Berlin - An International Network University

13. Berlin FU
    Berlin School of Mind and Brain

14. Berlin HU
    Berlin-Brandenburg School for Regenerative Therapies

15. Berlin HU
    Berlin Graduate School of Social Sciences

16. Berlin HU zusammen mit Berlin FU*
    NeuroCure: Towards a Better Outcome of Neurological Disorders

17. Berlin TU
    Berlin Mathematical School

18. Berlin TU
    Unifying Concepts in Catalysis

19. Bielefeld U
    Bielefeld Graduate School in History and Sociology

20. Bielefeld U
    Cognitive Interaction Technology

21. Bochum U
    Ruhr University Research School

22. Bonn U
    Bonn Graduate School of Economics

23. Bonn U zusammen mit Köln U*
    Bonn-Cologne Graduate School of Physics and Astronomy

24. Bremen U
    Mathematics: Foundations, Models, Applications

25. Bremen U
    Global Change in the Marine Realm

26. Bremen U
    Bremen International Graduate School of Social Sciences

27. Bremen U
    The Ocean in the Earth System

28. Bremen U
    From Cells to Tissues to Therapies

29. Erlangen-Nürnberg U
    Erlangen Graduate School in Advanced Optical Technologies

30. Erlangen-Nürnberg U
    Engineering of Advanced Materials - Hierarchical Structure Formation for Functional Devices

31. Frankfurt/Main U
    Macromolecular Complexes

32. Frankfurt/Main U
    Formation of Normative Orders

33. Freiburg U
    Molecular Cell Research in Biology and Medicine

34. Freiburg U
    Centre for Biological Signalling Studies – from Analysis to Synthesis

35. Freiburg U
    Windows for Research

36. Giessen U
    International Graduate Centre for the Study of Culture

37. Giessen U zusammen mit Frankfurt/Main U*
    Cardio-Pulmonary System

38. Göttingen U
    Göttingen Graduate School for Neurosciences and Molecular Biosciences

39. Göttingen U
    Microscopy at the Nanometer Range

40. Göttingen U
    Göttingen: Tradition - Innovation - Autonomy

41. Hamburg U
    Integrated Climate System Analysis and Prediction

42. Hannover MedH
    Hannover Biomedical Research School

43. Hannover MedH
    From Regenerative Biology to Reconstructive Therapy

44. Hannover U
    Centre for Quantum Engineering and Space-Time Research

45. Heidelberg U
    Heidelberg Graduate School of Fundamental Physics

46. Heidelberg U
    Heidelberg Graduate School of Mathematical and Computational Methods for the Sciences

47. Heidelberg U
    The Hartmut Hoffmann-Berling International Graduate School of Molecular and Cellular Biology

48. Heidelberg U
    Cellular Networks

49. Heidelberg U
    Asia and Europe in a Global Context: Shifting Asymmetries in Cultural Flows

50. Heidelberg U
    Heidelberg: Realising the Potential of a Comprehensive University

51. Jena U
    Jena School for Microbial and Chemical Ecology

52. Jena U
    A Concept for the Future of the Universität Karlsruhe (TH)

53. Kiel U
    Graduate School for Integrated Studies of Human Development in Landscapes

54. Kiel U
    The Future Ocean

55. Kiel U
    Inflammation at Interfaces

56. Konstanz U
    Konstanz Research School *Chemical Biology*

57. Konstanz U
    Cultural Foundations of Social Integration

58. Konstanz U
    Model Konstanz - Towards a Culture of Creativity

59. Leipzig U
    Building with Molecules and Nano-Objects

60. Leipzig U
    Graduate School for Computing in Medicine and Life Sciences

61. Mainz U
    Materials Science in Mainz

62. Mannheim U
    Empirical and Quantitative Methods in the Economic and Social Sciences

63. München LMU
    Graduate School of Systemic Neurosciences

64. München LMU zusammen mit München TU*
    Nanosystems Initiative Munich

65. München LMU
    Munich-Centre for Integrated Protein Science

66. München LMU zusammen mit München TU*
    Munich-Centre for Advanced Photonics

67. München LMU
    Working Brains - Networking Minds - Living Knowledge

68. München TU
    International Graduate School of Science and Engineering

69. München TU
    Cognition for Technical Systems

70. München TU zusammen mit München LMU*
    Origin and Structure of the Universe

71. München TU
    The Entrepreneurial University: Institutional Strategy to promote Top-Level Research

72. Münster U
    Religion and Politics in Pre-Moder and Modern Cultures

73. Saarbrücken U
    Saarbrücken Graduate School of Computer Science

74. Saarbrücken U
    Multimodal Computing and Interaction

75. Stuttgart U
    Graduate School for Advanced Manufacturing Engineering

76. Stuttgart U
    Simulation Technology

77. Tübingen U
    Centre for Integrative Neuroscience

78. Ulm U
    International Graduate School in Molecular Medicine Ulm

79. Würzburg U
    Graduate School for Life Sciences

* Co-Antragsteller

Abkürzungen:
FU = Freie Universität
HU = Humboldt-Universität
LMU = Ludwig-Maximilians-Universität
ModH = Medizinische Hochschule
TH = Technische Hochschule
TU = Technische Universität
U = Universität