

Chapter 3

Germany: A Latecomer to New Public Management

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3.1 Introduction: The German University System

In comparison with other European countries such as Great Britain or the Netherlands, Germany is a latecomer with respect to reforms of its university system, although complaints about problems started to accumulate as early as the 1960s. Some reforms in the early 1970s did not really improve the situation. On the contrary, for 20 years their failure discredited further efforts of reform and reinforced those who claimed that German universities were basically ‘healthy’ were they only to receive better funding from the state. Although German re-unification seemed to briefly open a window of opportunity for an overall change in higher education structures through the necessary reform of East German universities, it did not help reform-oriented actors much (Mayntz, 1994). With respect to universities, as in other societal sectors in East Germany, the enormous time-pressure to come to terms with the installation of a working system allowed only the substitution of politically discredited persons; those West-German professors who acted as temporary or permanent agents of renewal did nothing more than implement the West German status quo.

Serious efforts of reform started just a few years ago, thus change is still at the very beginning. Therefore, reliable interpretations of what is happening and predictions of what will happen are difficult to ascertain. We shall nevertheless attempt to give an overview of the German situation. After a very brief description of basic structures of the German university system, reflections on overall societal changes, which brought with them new demands on universities since the 1960s, are given. We then concentrate on the governance regime of the German university system and show that the traditional regime no longer fitted these demands. With regard to the process of attempts to install the ‘New Public Management’ (NPM) regime, two questions have to be asked:

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Will it be successfully and completely implemented in some years, or will it be stopped at a certain point by strong resistance – and if so, what would the mixture of the traditional regime and the NPM regime look like?

Is the NPM regime an adequate way to meet the new demands that universities face in teaching as well as in research – or are critics correct in claiming that it enforces management principles from the economy, which do not fit the public sector in general, and universities in particular?

We shall raise these questions not only with respect to the general governance structures of the German university system, but also with respect to two “tracers” of the effects of these governance changes: modes of research funding and doctoral training.

3.1.1 System Characteristics

With a population of more than 80 million, Germany is the largest European Union (EU) country and one of the leading countries in the world economy. In 2008, in the German higher education system, which has a binary structure, there were 1.94 million students. Of the 391 institutions of higher education, 104 are universities in the proper sense whereas there are a much larger number of institutions of professional education (Fachhochschulen etc.). Nonetheless, about two thirds of the students in Germany are enrolled at universities. These universities employed about 174,953 academics in 2007 of which 21.7% were professors. In 2002, the total finances of the universities made up 1.0% of Germany’s gross national product.

Almost all of the 391 institutions of higher education are public and thus their basic funding comes from the Bundesland (in this paper, ‘Bundesland’ is referred to as “state”) in which they are located.¹ According to the German constitution, the 16 states are responsible for all issues of education and culture, and this includes universities. The federal government plays only a subordinated role in financing and regulating the university system. The states coordinate their policies with respect to universities and higher education in general at a standing conference of the respective ministers (Kultusministerkonferenz: KMK); to coordinate the states with the federal government, a joint standing commission for educational planning and research promotion exists (Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung: BLK). Finally, the Science Council (Wissenschaftsrat) is an advisory body in all matters of higher education and science policy with two boards – one consisting of representatives of science, the other of representatives from the states and the federal government.

¹ The 16 German ‘Bundesländer’ are states inside the federation of the German nation state with own constitutions, own legal powers and public administrations. Moreover they provide the execution of the federal law through their public administrations and courts.

Three intermediary actors between universities, on the one hand, and government, on the other, are especially important in the German system. The German Agency for Research Promotion (Deutsche Forschungsgemeinschaft: DFG) is the most important agency for the funding of projects in basic research. DFG funds make up more than 40% of the German universities' entire external income (Kuhlmann and Heinze, 2004: 53). The states and federal government equally share the financing of the DFG's funding budget. The German Rector's Conference (Hochschulrektorenkonferenz: HRK) is the organized interest group of universities and the German Higher Education Association (Deutscher Hochschulverband: DHV) is the university professors' professional association.

All these actors have a say in university governance; therefore 'network governance' is and always has been a dominant structure in the German higher education system. This is due to the "semi-sovereign"-character of the German state (Katzenstein, 1987) that is characterized by a huge amount of joint-decision-making between the federal government and the 16 states, as well as a high degree of involvement of corporatist actors in the processes of policy formulation. In this sense, Germany had established network governance long before it became fashionable as a new mode of governance in other countries.

3.1.2 Social Pressures for Inclusion

Universities are dual-purpose organizations and as such belong simultaneously to the educational and to the science sub-system of modern society (Braun and Schimank, 1992). With respect to teaching, as well as to research, universities in all Western countries became subject to increasing inclusion pressures from both societal sub-systems in the 1960s.²

With respect to Germany during the 1960s, educational policy-makers were convinced that they had to increase the share of students in coming age cohorts significantly so that the needs for academic qualifications in more and more occupational fields could be satisfied. In the German context, this did not amount to the creation of a new sub-university sector of higher education that could have functioned as a buffer for universities against this societal demand. In countries like Great Britain or the Netherlands this path was deliberately taken with the establishment of Polytechnics or HBOs, respectively. Although in Germany too former schools of professional education were upgraded to Fachhochschulen and a number of new Fachhochschulen were founded, the growth of this sector was never sufficient to enrol the masses of new students. In fact, Fachhochschulen were not supposed to fulfil this function. Educational policy-makers as well as employers and professors at universities believed that the quantitatively larger part of the new academic qualifications needed could only be delivered on the

² As a useful summary of these developments see also Nickel (2007: 21–46).

level of university study programs. Unions and individuals shared this belief not the least because a university degree guaranteed a higher salary than a Fachhochschul degree. As a consequence, German universities, which by now had excluded the overwhelming majority of the population, were expected and willing to include an ever-growing part of it in future. They were supposed to be transformed from elite institutions in the direction of a “massification of higher education” (Gibbons et al., 1994).

For a short period of time, from the mid-1960s until the mid-1970s, the German university system grew considerably. Quite a number of new universities were founded, and the old ones’ were enlarged with respect to study places and academic staff. During this time, the inclusion of increasingly more students was by and large in the interest of universities as organizations and their professors as an academic profession. Their status in an arising ‘knowledge society’ grew; they did not have to share this status with Fachhochschulen nor give way to them as key players of higher education; and an increasing teaching load accompanied by a worsening student-staff ratio was thought of as merely a temporary phenomenon.

Since the 1960s the inclusion pressure with respect to the research function of universities grew as well. This had to do with a general penetration of more and more societal sectors and activities by scientific knowledge. Not only industrial production, health care and the military were supposed to become more rational by the application of knowledge originating from scientific research, but also political decision-making in for example environmental protection, top athletics and family life. These hopes legitimated politicians to increase the amount of public money for research promotion, and a considerable share of that went into the basic funding of universities. Therefore, science policy-makers felt the need – and public pressure – to make sure that this money was not spent entirely on research merely motivated by criteria of scientific curiosity. In this respect, inclusion pressure meant that university research should become more responsive to societal demands for extra-scientific “relevance”. The self-exclusion of university research into the notorious ‘ivory tower’ was supposed to end.

Universities and their professors once again had to meet this demand primarily for considerations of self-interest. They had to proclaim and to some extent also practice ‘relevance’ under the heading of, among others, technology transfer. The reason for this was that they anticipated the threat of a possible research drain, from universities to the state-financed extra-university sector built up after World War II and already stronger than in most other European countries. In the end, universities and their professors could possibly lose most of their research function to the Max-Planck-Society, the Fraunhofer Society, the large national laboratories, and other kinds of extra-university research institutes. This would not only mean that university professors would lose that part of their work which has the highest intrinsic attraction to them and gives them their peculiar reputation among colleagues and within the larger society, but also that universities would no longer distinguish themselves from Fachhochschulen. The latter aspect also prevented universities from delegating research focused completely on ‘relevance’ to the Fachhochschulen. If universities wanted to maintain their position as the ultimate ‘home of science’

where basic research without immediate application value had a safe refuge, paradoxically they could not ignore 'relevance'.

In sum, since the 1960s the German university system has been confronted with growing inclusion pressures both in its teaching and its research function, and both pressures were irresistible from the perspective of the universities' and their professors' self-interests. It is important to explain and emphasize this fact because political arguments and actions concerning the reforms of the governance regime of the German university system were and still are often expressed in a voluntaristic manner – suggesting, that decision makers could choose from a broad bundle of options (including non-decision making). Of course, up to a certain point one may ignore changes in the societal environment of the universities and continue business as usual as if nothing had happened. This was indeed the case until the late 1990s, that is for more than 30 years. Changing functional demands do not automatically enforce the elimination of governance structures that no longer fit, nor do they lead to the establishment of optimally adapted structures. However, not only do the costs of sticking to a no longer functional governance regime increase with time; these costs also indicate the direction in which change should proceed. With regard to teaching, both an increase of societal effectiveness, as measured by occupational requirements, and an increase in efficiency, as a better return of investment of increasingly scarce public funds, is at stake. Concerning research, the same criterion of efficiency is combined with societal effectiveness in the sense of increased responsiveness to extra-scientific needs.

There is no immediate, easily recognizable link between certain characteristics of a governance regime of the university system, on the one hand, and its overall teaching and research performance on the other. On the contrary, such effects on performance are subject to ever-new controversial debate. As long as there is no valid empirical evidence from relevant studies, one can only identify the beliefs of relevant actors who guide their argument in debates and political conflicts about university governance and reformulate them into hypotheses, which should guide further research. With this modest ambition, we now turn to an investigation of governance changes.

3.2 The Traditional German Governance Regime and New Public Management

The traditional governance regime of the German university system was described by Burton Clark (1983: 140), as a combination of political regulation by the state and professional self-control by an "academic oligarchy". At the beginning of the nineteenth century, the Humboldtian idea of "solitude and freedom" of teaching and research was granted to universities in return for political subordination of professors by an authoritarian state which also funded them (Ben-David, 1971: 108–138). Despite radical changes in government since the Second World War, the German university system is still characterized by this historical compromise. In legal terms, this is expressed by the recognition of the

dual nature of universities as both public service institutions and autonomous corporations (Kimminich, 1982).

Thus, the institutional autonomy of the university in its relationship to the state was rather low until recently. The autonomy of individual professors, however, in all matters concerning teaching and research was high. With respect to the academic oligarchy, professors were the most important pillars of the German system – a “chair-based organisation” of “small monopolies in thousands of parts” (Clark, 1983: 140).

3.2.1 Traditional Governance Regime

From the chair-holder’s point of view, the university and the department to which he belonged was a local corporation of colleagues – the other chair-holders – among whom there was a basic equality of rights and opportunities.³ This was institutionalized by a peculiar non-use of formal rights. Formally, university leaders – rectors and deans – could not disregard a majority vote taken by the university senate or faculty council. Traditional governance thus limited hierarchical authority. However, issues were generally not even put to majority vote; instead, consensus was sought among representatives of collegial bodies and those who were affected – or who felt themselves affected – by a particular issue. Amongst chair-holders, this practice was understood as ‘cooperativeness’ (Kollegialität). Each chair holder could normally expect that no decision in violation of his interests would be taken. These implicit non-aggression pacts transformed a formal structure of majority rule into a structure of informal veto-powers (Schimank, 1995: 222–258). The consequences were obvious: decision-making took a lot of time; and the status quo could be changed only when everybody profited, or at least no one suffered a significant loss. Nothing more than compromises were reached, often leading to insufficient solutions or merely to symbolic politics.

These non-aggression pacts stemmed from a number of considerations. Firstly, one sought to avoid conflicts with those whom one frequently meets. Secondly, academic solidarity against external threats – especially from state authorities – had to be maintained. Thirdly, the mobilization of a majority for any one academic’s particular interests would have required an enormous effort in the formation and maintenance of a fragile coalition. Fourthly, even if this could have been achieved, each concerned academic would have been aware that others would try the same,

³In the beginning of the 1970s, the other status groups (teaching and research assistants, students and non-academic staff) gained some formal rights of participation that were legally fixed by federal framework law (Hochschulrahmengesetz: HRG) in 1976. However, the dominant position of the professors was not shaken and the involvement of more groups in university governance – the so-called ‘democratisation’ of the universities – only brought about more bureaucracy and never-ending meetings where no decisions were taken at all (Luhmann, 1987).

and no one could always be sure to be on the winning side. Such considerations motivated chair-holders against taking “uncooperative” initiatives. As a consequence, collegial authority exhibited the features of a “receding locus of power”: “wherever or at whatever level one applies to the organization, the ‘real’ decisions always seem to be taken somewhere else.” (Noble and Pym, 1970: 435–436).⁴

As long as an organization has no need for change, or if change consists only in the distribution of additional resources, everybody can live with the requirements of consensus. However, as we explained this has not been the situation in which German universities have found themselves in the last decades. On the contrary, arising problems stemming from the inclusion pressures in teaching and research could not be solved. These problems did however accumulate due to the stop of the expansion of resources for the higher education system on the one hand, and the traditional mode of collective decision-making in universities on the other.⁵ To list just a few catchwords with regard to teaching: declining quality of teaching, increasing drop-out rates, prolongation of time needed for studies, complaints of employers about qualification deficits of graduates; and with regard to research: declining international visibility of research conducted in German universities, lack of attractiveness for foreign researchers, a fragmented system of quality control, complaints from industry and other extra-scientific users of research results about the unresponsiveness of university research to their needs. Of course, these and other problems were probably exaggerated, but everybody agreed that there were real problems that had to be dealt with.

Whereas universities and professors claimed that the problems were mainly caused by a growing scarcity of public funding, and demanded significant budget increases, the state governments began criticizing this attitude as unrealistic with regard to their financial possibilities and – more importantly – as a diversion of attention from the real causes of performance deficits. The state governments and the federal government became convinced that the central cause of all of these problems was the inability of German universities to reform themselves. This in turn was mainly seen as a result of the professors’ unwillingness to change the status quo, which would have meant at least a partial loss of individual and collective privileges. In other words, what the ‘resource dependence’ and ‘population ecology’ perspective holds for organizations in general, that they cannot adapt to environmental changes because of their fundamental “inertia” (Hannan and Freeman, 1977; Pfeffer and Salancik, 1978), was now diagnosed by governments

⁴These authors studied this phenomenon in a large British public agency – for the same phenomenon in German universities see Schimank (2001).

⁵The oil-price-shock and a weakening economy made less money available for public expenditure on German higher education since the middle of the 1970s. In 1977 the KMK decided not to react to increasing enrolment rates and stopped the expansion of university infrastructure and personnel. The ministers relied on the false prognosis that enrolment would decline to the status quo ante in the 1980s – this soon turned out to be wrong. Until today, student numbers have kept on growing, but the expansion stop is maintained.

for the universities – this not, however, as an inevitable fate, but as a feature which can and must be changed.⁶ After all, from government’s perspective, universities should become organizations that are able to adapt to changing societal demands on teaching and research.

3.2.2 *The NPM Model and Germany*

In other European countries and by international organizations like the OECD, NPM was proposed and debated since the 1980s as a governance regime fitting to generally shape public organizations in the direction of becoming responsive, and even more, efficient performers (Hood, 1991; OECD, 1995; Ferlie et al., 1996; Pollitt and Bouckaert, 2004). In Germany the NPM regime arrived in the middle of the 1980s via model-projects in the Netherlands, to instruct reforms of municipalities. Eventually debates about the NPM regime began to spread around other areas of the public sector until they appeared on the German university scene in the second half of the 1990s.⁷

To understand the NPM model and to compare it systematically with the traditional governance regime of the German university system, five mechanisms may be analytically distinguished in the governance of universities⁸:

- *Bureaucratic regulation* concerns the traditional notion of top-down authority vested in the state. This dimension refers to regulation by directives; the government prescribes in detail behaviours under particular circumstances, for instances, in financial or personnel issues.

⁶ A first political move in this direction can be traced back to the “sixteen theses from Bonn” by federal minister for education Dorothee Willms in 1985. Here, emotive catch words like “competition”, “profile building”, the desirability of more “third party funding” and “incentive systems” for excellent professors were introduced in the political debate for the first time. However, since the higher education system is under prior legislation of the states all the federal minister could do at that time was agenda-setting.

⁷ Two influential proposals of NPM with respect to German universities were Brinckmann (1998) and Müller-Böling (2000), the former author being president of the University of Kassel at that time whereas the latter author was director of the Centre for the Improvement of Higher education (Centrum für Hochschulentwicklung: CHE). The CHE is a think tank initiated by the HRK and the Bertelsmann Stiftung – the latter being a private donation with the mission of an intellectual catalyzer of reforms in German society at large. However, the rise of NPM in Germany was a complicated process in which many coincidences played a decisive role at times.

⁸ These five dimensions derive from Burton Clark’s (1983) well-known initial “triangle of coordination” (“state”, “market”, “academic oligarchy”), to which he himself later added a fourth mechanism (“organisation”) – see Clark (1998). In addition, the “state” dimension can be further split into two different dimensions (“regulation” and “guidance”), according to Braun and Merrien (1999). For the use of this “governance equalizer” in comparative research see de Boer et al. (2007) and Lange and Schimank (2007). See also the more detailed discussion of the NPM-narrative in the introduction of this volume.

- *External guidance* concerns activities that direct universities through goal setting and advice. In public university systems, the government is usually an important stakeholder, but not necessarily the only player in this respect. It may delegate certain powers to guide to other actors – such as intermediary bodies, independent agencies or representatives of economy and society in university boards.⁹
- *Academic self-governance* concerns the role of professional communities within the university system. This mechanism is institutionalized in collegial decision-making within universities and in the peer review-based self-steering of academic communities, for example, in decisions of funding agencies.
- *Hierarchical management* concerns the role of university leadership – rectors or presidents at the top-level and deans at the intermediate level – in internal goal setting, regulation, and decision-making.
- *Competitive pressure* with respect to scarce resources – money, personnel, and prestige – within and between universities mostly takes place not on real but on “quasi-markets” (Le Grand and Bartlett, 1993) where performance evaluations by peers substitute the demand-pull from customers.

3.3 NPM Implementation in the German System

In all five of these mechanisms, the NPM model differs sharply from the traditional governance regime of the German university system. Traditionally, as already shown, strong academic self-governance featured alongside strong bureaucratic regulation by the state. In contrast, the NPM regime strengthens the hierarchical management by rectors and deans, as well as external guidance by state authorities and stakeholders and also that of competitive pressure. At the same time, the NPM regime implies a marked deregulation in budgeting and personnel management, and in the approval of study programmes. This is what is usually implied by government when it promises greater ‘autonomy’ to universities. In stricter terms, it promises organizational autonomy – not to be confused with the individual autonomy of professors. Indeed, a reduction of academic self-governance is another explicit goal of the current NPM regime policies in the German higher education system.

3.3.1 Increased Competition

The core issue of the NPM regime in German higher education policies is without a doubt an increase of competition among and within universities for resources, students, and national as well as international reputation. To attain organizational

⁹This could possibly boost new forms of “network governance” and strengthen a more democratic involvement of the taxpayer via representation in university boards as suggested in the introduction – but it could also lead to more hierarchy if participation is limited to elites only.

competitiveness, deregulation is one prerequisite; another is the establishment of an organizational leadership which is able to effectively act on behalf of the university as a corporate actor. A final prerequisite is that greater external guidance is supposed to give broad long-term orientation to a university's competitive strategy. Spelled out in this way, it becomes clear that the NPM regime is not just a bundle of loosely coupled or disconnected changes, but rather an integrated approach that is in strong opposition to the traditional governance regime of the German university system. Therefore, when German state governments increasingly adopted the NPM model the core message was: Weaken the old regime, dominated by a state-regulated profession, for the sake of a new regime, dominated by a market- and state-driven organization!¹⁰

What has actually happened with respect to the implementation of the NPM regime in the German university system? The picture is not only difficult to draw because things are under construction everywhere, but also because each of the 16 states sets somewhat different priorities and accents the same measure differently.

To begin with, there has always been an important element of *competitive pressure* among individual researchers at universities, which has become stronger with increasing dependence on funds from the DFG, the Federal Ministry of Research and Education, the EU, and industry. The share of these funds in the overall university budget has increased steadily and was about one quarter of the budget spent on research in 2002 (Kehm and Lanzendorf, 2006: 140). Still, success rates for applications to the DFG decreased (see next section). Thus, a growing dependence on project money has gone along with sharper competition, which produces more losers than previously. In 2004, in order to increase the worldwide research competitiveness of the German university system, the federal government suggested the creation of "elite universities", which it wanted to support generously with extra money so as to improve conditions for research as well as graduate training. Although the states were in urgent need of these additional resources, they blocked this initiative because they feared it would lead them into a destructive competition and, moreover increase the federal government's influence on the university system – which, together with the school system, is one of the most important competencies of the states. Finally, a compromise for an "excellence initiative" was reached so that now some centres of excellence and some larger research cooperations will profit from considerable additional temporary funding by the federal government.

With respect to teaching, in several states modest – by international standards – study fees were introduced. In January 2005, a coalition of three states won a lawsuit in the federal constitutional court against the federal government's prohibition of fees. In those states, which introduced fees in the aftermath of the court's decision, the use of this additional income by universities is usually tied to improvements of, often miserable, study and teaching conditions. In Northrhine-Westfalia for example, student representatives have the right to check that this is indeed the

¹⁰ Von Wissel (2007) shows that for a long time the discourse about German universities disregarded all organizational matters as something "external" to the "idea" of the university.

case. Fees might result in increased competition for students – but only if universities can earn more money than they need to process the additional student demand, and if so, only for those universities that develop a strongly teaching-oriented profile because in most cases it is not permitted that the extra money be invested in research. It remains to be seen whether this first condition is or will remain the case. Even more doubtful is whether faculties or universities as a whole will declare to offer, above all, top quality teaching to the neglect of research.

Still other measures to increase competitive pressure include a new salary scheme for professors, laid down by the Federal Government in 2002 and allocating approximately one third of the salary according to performance. However, this salary scheme applies only to those who receive their first professorship or to those who change from one professorship to another. Also, the new scheme has to be cost-neutral compared to the old one, which tied salary increases to an upward movement on a seniority scale. More so, those who get appointed to their first professorships start for the first years without the performance-related component, leading to a massive income loss in comparison with the traditional salary scheme. The result is a two-class-system of professors: one class being the well-to-do established professors with strong disincentives to change, because even as top-performers, they can only in rare cases earn more than they already have, and the other class being the impoverished and dissatisfied new professors. Only after considerable time, the generation change will bring about a situation when the new salary scheme applies to everyone.

At last, in most states, part of the basic funding of universities is now distributed according to performance criteria such as the number of graduates or the size of project funds (Jaeger et al., 2005; Leszczensky and Orr, 2004). However, about three quarters of a university's budget is spent on fixed personnel costs; moreover, the possible gains or losses of a university due to performance indicators are usually limited to between 1–5% of the previous annual budget. This prevents weak performers from financial problems. Thus, only a very small part of the budget is used for incentives, and also, their potential effects on motivation are minimal (Minssen et al., 2003; Lange, 2007).

Most of the mechanisms of competition discussed – study fees being an exception – do not have a direct monetary influence of demand on supply. Accordingly, most markets within the system are merely 'quasi-markets'. Evaluations of teaching and research become a necessity in order to ascertain the relative position of a university, a faculty, or an individual professor. All states have started evaluations and in some, in Lower Saxony for example, evaluation agencies have been established (Schiene and Schimank, 2007). Evaluation methods and criteria differ considerably. In most cases, some kind of informed peer review is established, but in most states indicator-based formulae mechanically used to distribute parts of public funding to universities are in favour too.¹¹ Even now, professors complain loudly about the time needed for the preparation of being evaluated or for participating in the evaluation of others. Since evaluators have to be highly reputed and trusted members of their

¹¹ However, in most cases there is no nexus between the formula the state uses for the distribution of money to universities and the internal allocation rules of a university.

disciplinary community, an increasing frequency and intensity of evaluation exercises might result in a situation where very good performers have to invest more and more of their time – to the disadvantage of their own research activities – in evaluating the less able performers. Whether the net result of this tendency is positive remains to be seen.

3.3.2 *External Guidance*

Turning now to *external guidance*, since the late 1980s, the states have set up commissions to assess universities and their teaching and research performance. Such a commission report provided a ministry with an overall view of that part of the German university system for which it was responsible. These reports initiated significant redirections in study programs and research priorities of the universities. Moreover, based on this knowledge, ministries started to formulate more systematic catalogues of general targets since 1998 with respect to their universities' teaching and research portfolio.¹² This was the basis on which 'management by objectives' has become institutionalized in the form of mission-based contracts between ministries and universities (Jaeger et al., 2005; König, 2007; Nickel, 2007). The idea behind mission contracts and target agreements is to boost profile-building activities of universities. In these agreements, state and university together identify weaknesses and strengths of the university with regard to student demand in certain courses and disciplines, teaching and research profiles, internationalization activities, cluster building and cooperation with local extra-university research institutions, etc. Usually the university promises to improve in weak performance areas and to invest heavily in well performing areas.

In this way, external guidance of universities has been established. However, in practice there are still great difficulties connected with this new instrument. In the beginning, mission-based contracts contained mostly vague statements on which both sides could easily agree because they did not commit themselves to anything specific and did not define certain negative sanctions in the case of non-achievement of the agreed-upon targets. When government became aware of this, it often reacted in a manner violating the logic of 'management by objectives'. Mission-based contracts should not contain concrete measures, but only broad statements of what has to be achieved in a defined time span. In practice, ministries often have not granted this flexibility to universities; instead, ministries have reverted to regulation

¹²In 1998 the federal government removed those paragraphs from the higher education framework law that prescribed the organizational structures and internal governance of universities. This gave the states more leeway to try new governance instruments on their own in their higher education legislation. The initial idea of the central government with regard to the cut back of federal legislation was to give universities more autonomy, and not to enable 16 state governments to fill the vacuum with an increase of in-detail-legislations by states. Nevertheless in many cases the latter happened.

under the guise of the NPM regime.¹³ For example, instead of formulating the target that the share of female students in certain study areas be increased by x percent over the next 6 years, leaving the actual pursuit of this target to each university, ministries prescribe detailed and uniform procedures as well as organizational structures of ‘gender mainstreaming’. Ministries have fallen back to regulation because they began to distrust the universities’ willingness to continue in the direction of the agreed-upon targets. This distrust is not totally unjustified because the ability of the university leadership, with whom the ministry negotiates to implement general goals one level below in faculties and institutes, is still rather limited. An additional reason for government’s distrust arises from an often practised non-compliance of universities with regard to their reporting duties about the achievement of targets and missions. However, the ministry’s behaviour has generated, on the university side, distrust in the commitment of the political side to the proclaimed shift from regulation to external guidance. Thus, mutual distrust has reinforced itself (Schimank, 2006). But as long as nobody believes that the other side believes in mission-based contracts, they remain a facade behind which the old game is continued.

A second, parallel way how external guidance has been installed in the German university system are university boards in which extra-scientific stakeholders are represented and which have certain formal rights vis-a-vis the university leadership (HRK, 2000; Schmidt, 2004). Who is eligible as a member of a university board, what kinds of persons are actually recruited, what tasks and rights a board has, and how it in fact works, varies widely among different states, and within states among different universities (Mayntz, 2002). In general, most ministries made no in-detail prescriptions with respect to the composition of these boards. Besides representatives of industry many other kinds of persons have been recruited, such as media people, trade union leaders, representatives of the local municipality, graduates of the respective university, directors of state-financed extra-university research institutes, and, rectors and professors from other universities. Some boards can only articulate recommendations. Most, however, have more, or less, decision-making powers especially with respect to the election of the rectorate, the strategic plans, the yearly budget plan, and – probably most importantly – the recruitment of professors.

Mission-based contracts, between universities and ministries and the recommendations or decisions of university boards, are major vehicles for an external influence on the profile building of universities. Under conditions of increasing competitive pressure, profile building could go in one of two principal directions (Meier and Schimank, 2002). Either a university attempts to find its ‘unique selling point’ that is a profile which is attractive to potential customers of its teaching as well as research offers and which it shares with no other university, or with as few as possible others; or it tries to imitate the profiles of those other universities which are generally assessed as especially successful. Taking the first direction is a

¹³ See for the case of Hamburg: Nickel (2007: 191–260).

demanding effort in terms of good ideas and internal conflicts to be solved, except for those few universities that already have a unique profile. Therefore, the majority of universities can be expected to turn to mimetic isomorphism (di Maggio and Powell, 1983), which will result in quite a limited number of profile elements that can be found again and again. For instance, many universities went into nanotechnology or biotechnology as research fields, or media studies as a study program. In fact, external guidance by ministries and university boards reinforces this trend towards a factual homogenization of profiles because the comparatively superficial view of teaching and research issues these actors have, is liable to fall prey to all kinds of fads. There may even be cases where a university itself has quite distinct and plausible views on its future profile, but is prevented to pursue them because external guidance forces it to become a cheap copy of some other university.

These considerations sum up the point that external guidance may help, as it is intended, a university to transcend its own narrow perspective from within the organization, and the narrow perspective of the academic profession on teaching and research issues. Especially extra-scientific priorities and criteria, which have become increasingly more relevant with the inclusion pressures described, can be represented in the decisions about a university's profile. Still, this potential positive effect of external guidance requires that ministries and board members make themselves knowledgeable about these issues as well as about how a university, as a peculiar kind of organization, works. Otherwise, external guidance may actually worsen a university's competitive standing and performance.

3.3.3 Bureaucratic Regulation and Managerial Self-Governance

We now come to the preconditions of competitive universities with respect to the other three governance mechanisms. Concerning *bureaucratic regulation* of universities, the situation since the relaxation of the German federal framework law in 1998 is that all states have implemented those aspects of deregulation expected to bring about efficiency gains. They have granted much more flexibility to universities and professors with regard to financial resources by abandoning many features of the traditional earmarked public budgeting (Kameralismus) and introduced lump sum budgeting (Globalhaushalte) instead. The latter allows universities much more leeway concerning the flexible spending of public budget money. This is one of the few features of university reform that is appreciated even by those who otherwise strongly oppose it. Moreover, in a few states, universities can choose their legal status. They may remain public institutions, but can also opt for becoming foundations of civil law. This opens additional room for manoeuvre in financial and organizational matters, even though universities remain bound to the public sector salary structure and its rigid employment categories.

All the measures of deregulation mentioned so far, however, seem to be motivated more by the states' scarcity of finances than by a wish to increase the universities'

organizational autonomy. Under conditions of scarcity, global budgets and financial flexibility mean, above all, that the responsibility for decisions about where and for which purposes money is allocated within a university, is now delegated to its leadership. From the perspective of “politics of blame avoidance” (Weaver, 1986), this is a quite clever move of the ministry.

Ministries are more reluctant to relax regulations relating to the structure and size of faculties and to the appointment of professors. Still, a few states have done away with the ministry’s right of approval of the appointment of professors and have delegated the final decision to rectorates of universities or to university boards. Moreover, the approval of study programs has been delegated from the ministries to newly founded agencies of accreditation, where academic peer assessment and quality criteria have a stronger role than before (Schade, 2004). It is still however, up to the ministry of a particular state to decide whether a given study program at a given university fits into the overall higher education plan of that state. This restricts a university’s profile-building in teaching considerably – for example, if a university is forced to stick to the training of physics teachers although its own competitive strategy would abandon it in favour of building-up a graduate school in fusion research.

Already in the 1990s, *managerial self-governance*, the second precondition of competitive universities, was formally strengthened. The decision-making competencies of rectors and deans increased in all states. University and faculty leadership could decide many issues without a majority in the university senate or the faculty council. In a number of states, deans now independently allocate those financial and personnel resources that are not tied to a professor’s appointment agreement. In addition, terms of office for rectors and deans were extended. Deans who were traditionally elected for 2 years now usually serve 4. In some states, deans now need dual approval – not only from their faculty, but also from the rectorate. Thus, they began to be seen as important in representing not only their faculty’s interests to the rector, but in being supposed to implement the rector’s policies within their faculty too – if necessary, against the will of the majority within their faculty council. After all, the system is acquiring elements of hierarchy although in reality most deans are not yet familiar with their new role (Nickel, 2007: 185).

3.3.4 *Academic Self-Governance*

Thus, *academic self-governance*, whose reduction is the corresponding last precondition of competitive universities to be mentioned here, has indeed been weakened formally. It however, continues to more-or-less stay alive in a more informal manner. At the moment, most measures to build managerial self-governance remain incomplete. The prevailing consensus-oriented culture of the academic profession compels many, in leadership positions, to act as if they had no new powers. Thus, formal competencies remain unused, and consensus, among professors at least, is still sought by rectors and deans. One reason for this situation is that those in leadership

positions know that one day they will return to the rank and file, and they do not want to make enemies among their predecessors. Another consideration that follows the same route is that university and faculty leadership know that they need the active engagement of professors in the implementation of decisions. Professors could effectively counter-act almost any decision rectors or deans may make, by practicing ‘go slow’ with respect to those activities that the decisions require of them. But the most important reason for ‘cooperativeness’ is that many persons in leadership positions have internalized the traditional organizational culture of consensus during their long academic socialization. So to recruit rectors, especially from outside academia, appears to some reformers as the only possibility to break up this cultural lag, which hinders the change of the governance regime of the German university system.

3.3.5 Overall Analysis

The overall picture of these changes of the five governance mechanisms is still unclear, and as yet, not very reliable. Many measures have been initiated, but most of them are not firmly implemented in the sense that they already belong to the uncontroversial components of a new governance regime. The university system was forced out of its old equilibrium without having found a stable new one. As a result, the picture drawn here might be a snapshot that does not cover events and developments that may happen tomorrow. This holds true in at least three respects:

- The power struggles among reformers, on the one hand, and those who resist reforms, on the other, continue. At present, nobody is able to anticipate how and when it will end. In the reformers’ corner are mostly policy-makers, especially from the ministries; party affiliation does not make much of a difference.¹⁴ In addition, quite a number of rectors now belong to the reform camp. Its opponents who defend the status quo, are basically the large majority of professors, many deans in particular, and also many members of the other status groups within the universities. Despite the dissatisfaction of each of the factions of the opponents with certain features of the status quo, they are united in their resistance against the NPM regime. Most probably neither a total victory of the reformers nor of their opponents will occur, but some kind of halfway armistice, partly a negotiated and partly a de facto result. It may well be that this armistice has the character of an enduring ‘cold war’, with mutual distrust and disrespect and each side attempting to cheat and vex the other wherever possible.

¹⁴Only the introduction of study fees, the failed abolishment of the “Habilitation” as a prerequisite for a full professorship as well as the degree to which the federal government should have a say in higher education policies have been controversial between the two big political parties. Typically for the German higher education system, in this respect, is that many of these controversial matters will be decided in lawsuits at the federal constitutional court.

- The dynamics of these power struggles work in interplay with the path dependencies inherent to the established traditional governance regime. The opponents of reforms are reinforced in their resistance by the lock-ins of the status quo. For example, how far can a strengthening of external guidance and managerial self-governance go when the ‘freedom of teaching and research’ is constitutionally guaranteed so that professors can easily appeal to the constitutional courts of the states against many measures of reform? In one state (Brandenburg) professors went to court against the evaluation of their teaching and research performance; the new salary scheme is also a matter of legal dispute. Even if professors cannot totally stop reforms, the ongoing crossfire of law suits with open end restricts the political room to manoeuvre as well as new legal interpretations so that particular measures of the NPM regime look considerably different in Germany in comparison to Great Britain for example, even though the political intentions may have been the same.

3.4 Tracers Issues

3.4.1 *Research Funding*

This general interpretation of the present situation of governance reforms in the German university system can be summarized in a pointed manner with respect to changes of research funding. As already described, changes of the financing of universities basically occurred in the following respects:

- A reduction of the share of basic funds
- The introduction of an allocation of a part of basic funds according to performance criteria, including part of the salaries of newly appointed professors
- An introduction of modest study fees
- A higher share of project funds and
- A diversification of the sources of project funds, including those of industry and EU

All these changes have brought about more competitive pressure into the provision of financial resources for universities in general, and for their research activities in particular. Interpreted in this way it looks as if the financing of universities has been deliberately shaped according to the NPM model; and this, indeed is what policy-makers say. They claim that they created instruments to use competition for improvements of efficiency and responsiveness of teaching and research.

In fact, the changes of financing are mainly political measures enforced by an enduring scarcity of public money for universities, or reactions to this scarcity by researchers at the universities. The ‘Excellence Initiative’ as a joint project of federal government and the states might be an exception because in this case additional money is allocated to the universities. Study fees, however, as introduced in Germany,

are simply an enforced self-participation of students in the costs of their studies, as the ministries responsible for the universities do not see any opportunities to receive more money in the yearly budget negotiations – although all German politicians rhetorically claim that a good academic education of the workforce is an urgent national priority. For a number of years the new salary scheme for professors will have the function to spare public money instead of establishing incentives for excellent performers. Finally, the increased competition for project funds from the DFG and other sources was something that policy-makers did not intend but contrarily tried to prevent by giving the DFG additional funds that were nevertheless insufficient. The success rate of project proposals went down from 68% in 1995 to 51% in 2006. This trend was worsened by the fact that with a DFG grant, funded projects could cover less and less of their real costs (Kehm and Lanzendorf, 2006: 165).¹⁵

With regard to individual research projects other funding resources are available from a number of foundations that supply smaller amounts of money, sufficient to finance a conference, print a book, invite a guest or cover some travelling costs. Usually foundations do not cover staff costs, but will give scholarships to excellent doctoral students. The Volkswagen Foundation is an exception to that rule: It distributes much larger funds on a competitive base for projects that fit into its thematically focused programs.

The third pillar of the German funding scene are the thematically focused and often mission based funding programs of the German federal ministry for science and education (BMBF), the state ministries and the framework programs of the European Commission. This sector puts the German funding scene under adaptation pressure. In the aftermath of an evaluation of its funding processes in 1998, the DFG was criticized for granting funds to small, individual projects and was recommended to concentrate on more thematically focused strong programmes: “In principle, resources should be concentrated on a few thematic fields and on fewer more visible projects” (Kehm and Lanzendorf, 2006: 165–166). In addition to the already existing Large Collaborative Research Areas (SFB), the DFG introduced funding for large decentralized research groups, thematically focused programs and research centres.

The ‘Excellence Initiative’, as introduced by the federal government and the states, recently reinforced the trend towards a more selective bias in research funding and a preference for big science. In this competition the universities as organizations instead of individual professors struggle for their share in a budget of €1.9 billion from additional public project funds. This budget is spent on successful

¹⁵This situation is actually changing as the DFG is now allowed to cover a part of the overhead costs of approved research projects as well. Until 2007 the universities had to cover all overhead costs for DFG-funded projects from their recurrent state funding which could lead to severe financial troubles for strong research universities with many DFG approved projects. In the “Hochschulpakt 2020” from 14.7.2007 federal government and state governments declared that they will take first steps towards full-cost financing for competitive research projects beginning with a surplus of 20% on the total amount of money granted by the DFG for an approved project. In the introduction phase (until 2010) this surplus will be covered solely from federal government funds.

proposals for graduate schools, clusters of excellence – implying close collaboration with local or regional extra-university research institutes such as Max-Planck-, Fraunhofer-, Leibniz- and Helmholtz-Centre-institutes – and outstanding concepts for the future development of a university as a whole. Success in the last mentioned category leads to a mass media driven public recognition as a German ‘Elite university’. Since the announcement of the results of the second round of the excellence-competition on the 19 October 2007, nine universities hold the “elite” label.

With respect to the funding of research projects some policy-makers have become aware that there might already be a ruinous competition. Because the basic funding of universities has become increasingly more inadequate to the demands of internationally competitive research in many fields of science, researchers cannot but search for more project funds as a compensation; otherwise, they would have to reduce or shift their research activities and in some cases actually to cease doing research. Because this is almost everyone’s situation, many intensified their activities to acquire project funds. Especially researchers from natural science disciplines – who are in need of expensive equipment, materials and research personnel – often prefer the mission oriented programs of the federal ministry or the EU framework programs because these funds allow them more flexibility on how to spend the money than do the DFG grants (Laudel, 2006). The DFG grants do not cover costs for basic research equipment or consumption goods. According to DFG policy the latter has to be provided by the universities. In cost-intensive disciplines, this budget is neither sufficient to maintain the expensive laboratory equipment, nor to modernize. As a result, a professor requires external funding to keep his research equipment up to date or to keep the staff working with these apparatus. But although some sources such as the EU have been used more extensively than before, and have increased their funding, the overall scarcity has increased because the aggregate demand has grown much more than the supply from all available sources.

Thus, an increasing number of researchers have become more dependent upon project funds. As a result, these researchers wrote more project proposals that had diminishing chances of success, and even if they were successful the amount of money given for a project was less adequate to cover the costs, or the period of time for which a project was granted was less adequate to do the work necessary to come to the promised results. This ‘rat race’ is taken to an evidently absurd extreme when such researchers become involved in the search for project funds that they do not really need to conduct their research, but have to show the leadership of their faculty or university that they are strong performers with respect to the external funding indicator, according to which parts of the basic funds they require, are distributed.¹⁶ To mention just three aspects of this state of affairs, first of all an increasing number of professors become ‘experts of fund raising’ and develop certain

¹⁶By now such cases seem to be rare in Germany; in countries like Australia, where a strictly indicator-based allocation of basic funds for research was established twenty years ago already, this pattern of behavior is found more often (Gläser and Laudel 2007).

adaptation strategies suitable to different funding sources. Usually the excellent researchers manage a complex funding source portfolio that is necessary to guarantee an uninterrupted flow of grants necessary for a smooth continuation of research activities (Laudel, 2006). Should the funds be received, relatively inexperienced young researchers who are left alone because professors have no time for supervision and advice often conduct the actual research work.¹⁷ Secondly, the quality of research suffers, because inadequate financing and time pressures do not allow better work.¹⁸ Thirdly, not only bad research is eliminated by stronger competition for resources, which is an intended effect, but quite a lot of research ranging from good to mediocre as well. However, modern science rests on a broad basis of unspectacular routine research, certainly in applied fields, but also in basic research. If this kind of research work cannot be conducted any longer the really excellent cutting edge research will suffer.

3.4.2 *Doctoral Schools*

Another closer look that also brings into focus the effects of governance changes on research can be taken by turning to the situation of doctoral candidates. Although they are just one sub-group of researchers at universities it must be kept in mind that in many disciplines most of the research done at universities is actually the outcome of the writing of a dissertation. For example, many research projects funded by the DFG or other sources are executed mainly by doctoral candidates whose dissertation is a smaller or larger part of their project work, sometimes even identical with it.

Traditionally, there were two ways to write a dissertation in the German university system (Enders and Bornemann, 2001). One was to become a teaching or research assistant of a professor. In this occupational status, part of the working time was formally reserved for the dissertation, or one had only a part-time occupation and was supposed to work – unpaid – on the dissertation during leisure time. The other way was to write one's dissertation without having a formal occupation at a university as an external candidate who did it either on a scholarship or in addition to a regular job in some other occupational sphere.

Both versions of the traditional “master-apprentice-model” still exist, and in Germany quantitatively most doctoral candidates take one of these (Kehm, 2007: 136).

¹⁷This has consequences for the efficacy of research as well: As a post-doc in biology stated in an interview, doctoral students and post-docs in third party funded projects have often good results in laboratory work, but lack the experience and skills to publish their results in journal articles. Because there is no one available to support them in these matters, many results are never communicated to peers and public.

¹⁸What worsens this is the fact that especially the excellent research staff employed in short-termed third party funded projects will leave the project for a better or more secure job while the project is still running.

But in the middle of the 1980s a third way was recommended by the German Science Council and then introduced into the universities: to work as a doctoral candidate funded by a scholarship in a graduate school (Graduiertenkolleg) together with others in a common field of research. Especially the graduate schools funded by the DFG were established in many disciplines on the basis of proposals submitted by a number of professors who together conceived the thematic and organizational framework for a 4–5 year period that can be prolonged for a second period of the same duration. In 2004, there existed 307 of such graduate schools with 14 doctoral candidates on average in each of them (DFG, 2004: 3–4). This new third way of doctoral studies was initiated as a copy of models that already existed in other countries. Almost 15 years later, at the end of the 1990s, in the context of the Bologna process, graduate schools were proposed as the third phase of studies after the Bachelor and the Master phase (Kehm, 2007). Such ideas served as a post-hoc legitimation of this third way, and the Science Council recommended the introduction of so called doctoral schools (Promotionskollegs) in 2002.¹⁹

There was no direct, intentional connection of these developments to the changes of the governance regime of the German university system starting at the end of the 1990s.²⁰ However, there have been certain reciprocal effects between the shift towards the NPM regime and the situation of doctoral candidates. We will point out the two most conspicuous effects. The first is a side-effect of the introduction of graduate schools, which supports the governance changes, and the second a side-effect of these changes, which worsens the conditions of work for doctoral candidates in general.

Graduate or doctoral schools are one method of a faculty or a university to create ‘critical masses’ of research capacity and overcome the traditionally prevalent small-scale research at universities. The extreme cases are the humanities, where it is still the rule that individuals such as a single professor pursue his or her research project, often without additional project funds. These professors supervise a few doctoral students, but they work on topics that are typically only loosely coupled to the professor’s research interests. In the other fields such as the natural or engineering sciences, such highly individualized research work has become very rare. There it is often one chair – a professor with a small number of research assistants who are partly on established posts and partly funded by project money and might include doctoral students on scholarships together with diploma-candidates – which makes up quite a small research unit, especially if it does not pursue a common line of

¹⁹These are supposed to differ from the preceding graduate schools in so far as they shall offer an even more structured course program for doctoral studies (Wissenschaftsrat, 2002). See WKN (2007) and Buch (2007) for descriptive assessments of such new modes of doctoral training.

²⁰A more indirect connection of the restructuring of study programs and degrees due to the Bologna process and NPM was that Bologna was an additional legitimation for state governments to enforce external guidance on universities via target agreements or mission contracts, which always referred to the achievement of Bologna goals.

research in a division of labour conceived by the professor.²¹ It is one of the declared goals of policy-makers to upscale research units at universities. Especially two reasons are given for the demanded transformation from the traditional ‘small is beautiful’ to a ‘large is beautiful’ approach to research. Firstly, policy-makers see an irresistible inner-scientific dynamic towards larger-scaled research activities in principally all disciplines. Secondly, they perceive an equally irresistible extra-scientific dynamic towards ‘bigger questions’ directed at all disciplines. This is the more important reason because it refers to the inclusion pressures on university research. Both dynamics reinforce each other. Answering bigger questions demands larger-scaled research approaches, and the latter stimulate the former. According to this logic, evaluations of research at universities started to pay special attention to the scale of research units and positively sanctioned visible efforts to upscale, such as building up more coherent profiles of institutes or faculties with respect to joint lines of research; and besides research groups or even special research areas funded by the DFG as well as graduate schools are appreciated as manifestations of such critical masses (Schienze and Schimank, 2007). Performance indicators for research, which are used to allocate part of the basic funds to universities, now also emphasize graduate schools, among other up scaling efforts.

There is an even more general reason why reformers of the governance regime are in favour of graduate and doctoral schools and would like to make them the regular way of writing a dissertation, if they could. This argument goes to the core of the NPM regime and is not as openly articulated. Graduate schools are one device of the larger repertoire of measures by which it is attempted to reduce the high autonomy of individual professors in favour of a stronger collective coordination of the discipline. By participating in a graduate school, a professor commits himself not only to a joint framework of research, but also to the joint supervision of all doctoral candidates in the school. Although finally, one professor is still the formal prime supervisor, all professors are required to engage in discussions and evaluations of all of the doctoral candidates’ projects. More so, the organizational work of establishing and maintaining a graduate school requires much more collective coordination and cooperation of professors than they were accustomed to in traditional university structures. Thus, the manifest specific effect of an up-scaling of research activities is accompanied by a more general latent effect of an up-scaling of the academic professions’ actor-hood. Of course, if this happened only in the context of graduate schools the consequences would be very marginal, not the least because only a minority of professors participates in such a school. However, graduate schools are just one of many vehicles that transport professors in the same direction.

²¹ One of the reasons why the Bologna-process met fierce resistance especially among natural science professors in Germany was the fact that diploma candidates were already valuable members of their research groups. A diploma candidate works 9 months on his thesis, which is sufficient to be involved in a project. Master candidates work 6 months and Bachelors only 3 months on their thesis, so professors fear that these will occupy laboratory space, need materials and instruction time without being able to help produce research results.

Coming now to the unwanted side-effect of the NPM regime on the situation of all doctoral candidates, we reiterate that the competitive pressure especially with respect to funds for research has considerably increased and partly become a ruinous competition. Although empirical data are lacking, it is plausible that the supervision of doctoral students suffers from the fact that many professors have to invest increasingly more time in acquisition activities. For those doctoral candidates who occupy research assistantship positions in funded projects, a lack of supervision combines with the general intensification of the project work loads as a result of insufficient funding; thus, they have less time for their own dissertation because they need to spend more time than formally stated on their project work.²² This dysfunctional effect of the NPM regime on the overall research performance of universities could well excel the functional effects of graduate schools on the up-scaling of the research units mentioned before.

3.5 Concluding Discussion: A Hybrid Model?

Both tracers show that the NPM regime will most probably have significant effects on research conditions and characteristics of research at German universities. These effects will partly be as expected and wanted by promoters of reforms, but will also be partly unforeseen and unwanted.

A development that could bear interesting questions for the future is the introduction of hybrid structures in German higher education governance, combining parts of the old regime with parts of the new under the umbrella of the NPM label. As pointed out in Section 3.3, hybrid arrangements can be found in the attempts of a performance based allocation of resources. On the one hand, this should increase competition between universities. On the other hand, the possible gains or losses in all states are strictly limited to prevent weak performing universities – and in the end the state in its stakeholder-function – from getting into financial difficulties. It is yet unclear if the effects of such a hybrid structure will show up as a conservation of the old financial regime in the future, or as the advent of a really competitive one, which will unfold in various consecutive steps.

What also appears to be a new tendency, is the enlargement of the network structure in German higher education governance. In the past, all experts involved in higher education policies were insiders as referred to in Section 3.1. The new higher education laws of the states now provide the legal framework for the inclusion of external experts in the governance of universities via several kinds of boards. Whether this leads to a more utility oriented opening of the universities for the needs of the greater public or on the contrary to an exclusion of public *and* academics for the sake of a strengthened influence of a small elite of industry and business representatives, remains to be seen.

²² In many cases third party funded doctoral candidates are even charged with teaching and administration duties as part of the implicit work contract with their professor.

For all these yet unpredictable consequences, further research on governance changes and their effects will be needed as more and more measures of the NPM regime are implemented. We suggest that the implementation is well advised not to proceed in too large steps that run the risk of becoming big mistakes. Here, as in many other fields of reform, a more cautious incrementalistic approach has its virtues.

Annex: The German Higher Education System in Facts and Numbers

Number of Higher Education Institutions in 2008	391
Universities	104
Universities of Applied Sciences (Fachhochschulen)	184
Other	103
Total number of enrolled students in winter 2007-2008	1,941,405
Total amount of Public Expenditure for Higher Education in 2004	€22.6 billion
Total percentage of Public Expenditure on Higher Education in 2004	4%
Total percentage expenditure of Gross National Product on Higher Education in 2005	1.0%
<i>The Annual National Expenditure for Higher Education purposes has grown from €5.7 billion in 1975 to €22.6 billion in 2005.</i>	

Higher education policies are regulated by:

- Federal framework law for higher education institutions (Hochschulrahmengesetz) (from 26.01.1976 to 01.10.2008)
- Sixteen different state laws (Landeshochschulgesetze) regulate the governance of higher education institutions in their jurisdiction

Key actors in the national network governance of higher education:

- Sixteen state ministries for cultural affairs (education, research, innovation)
- Standing committee of state ministers for cultural affairs (Kultusministerkonferenz: KMK)
- Federal ministry for education and research (Bundesministerium für Bildung und Forschung: BMBF)

- Science council (Wissenschaftsrat: WR)
- National joint standing committee for educational planning and research promotion (Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung: BLK); since 1.1.2008 followed by the National joint science conference (Gemeinsame Wissenschaftskonferenz von Bund und Ländern: GWK)
- German agency for research promotion (Deutsche Forschungsgemeinschaft: DFG)
- National association of rectors and presidents of German higher education institutions (Hochschulrektorenkonferenz: HRK)
- Professional association of German professors (Deutscher Hochschulverband: DHV)