

## **Introduction**

# **Looking back: Higher Education Reform in Germany**

*Ece Göztepe-Çelebi, Freia Stallmann, Annette Zimmer*

The history of higher education reform in Germany is rooted in the beginning of the 19<sup>th</sup> century. The victory earned by Napoleon over the Prussian army in 1806 led to comprehensive restructuring of the institutions of the Prussian State, including far-reaching reforms of the universities. These reforms created the persuasive academic basis for the modern Research University with the construction of the University of Berlin between 1808 and 1810. Wilhelm von Humboldt's contribution has been essential as the main principles underlying "his university", i.e. academic freedom and unity of research and teaching, have served as a model of reference throughout the history of German higher education (Humboldt reprinted in 1968).

The Prussian university system, which became a model type, not only for Germany, relied on the productive tension between the academic and the administrative spheres. Faculty members were controlling academic issues, whereas state bureaucrats were taking care of decisions concerning personnel and budgets. Thus while power within universities was mainly held by full professors, the famous so-called mandarins, a university's autonomy was restricted by administrators, who carefully guarded the entrance to civil service positions when considering new appointments (Katzenstein, 1987, p 298). In

Humboldt's conception he had created a system, in which wise ministers nurtured a fiercely independent academic resource, the university, which, in turn, provided even wiser ministers to successive governments.

In the Imperial era (1870-1914), the rise of the modern system of specialised and large-scale research and the parallel growth of an expert society which demanded academically trained, but not necessarily broadly educated professionals, led to a diversification of higher education in Germany. Several new academies for middle-level professionals were created in this period (Turner, 2001, p 13/14). Universities were no longer exclusively perceived as being the institutions for educating ministry officials for the growing bureaucracy of the Empire, but by this time they had also become training institutions for managers and engineers of Germany's thriving industrial sector (Ellwein 1992).

National Socialism had a devastating impact on academic life in Germany. After 1933, professors' claims to leadership and freedom of teaching and research disappeared, due in part to political manipulation, but also to passive acceptance or even active collaboration of many German academics, who by no means served as role models for leadership and individual courage. The majority of German university teachers were not in opposition to the Nazi regime. With respect to career development, some university professors even benefited from the brain-drain that took place under the Nazi regime, while others tried to retain autonomy by simply adapting to the new system (Pfetsch, 1994, p 226).

After the Second World War within the two German States, the German Democratic Republic (GDR) and the Federal Republic of Germany (FRG), two very different systems of higher education developed. In the German Democratic Republic (GDR), the Humboldt tradition was systematically undermined in keeping with Marxist theories, which led among others to the functional separation of research from teaching (Reinschke, 1994, p 140 and 152ff). In the Federal Republic of Germany (FRG) the traditional *Ordinarienuniversität* of the late 19<sup>th</sup> century, including the prestigious status of full professors, was nostalgically idealised. After the Nazi period, West German universities perceived state intervention as a threat to intellectual freedom and successfully strove to maintain a high degree of autonomy, that was even higher than it had been before the Second World War. Universities' corporate self-governance was enhanced, now expanding to areas previously controlled by state administration. Higher education policy, which was supported by a consensus that crossed the entire political spectrum, focused during this period exclusively on rebuilding the traditional university system. University reform did not become a central political issue until the early 1960s (Katzenstein, 1987, p 300).

The 1960s reform movement took place against the background of a doubling in the number of university students between 1955 and 1965 and the forecast of a deficit of 100,000 schoolteachers by the end of the 1960s (Katzenstein, 1987, p 304). What started as a qualitative concern about the international competitiveness of German research, complaints about the American "brain drain" and the lack of interdisciplinary approaches in the early 1960s,

was soon turned into a discussion on quantitative expansion of the system of tertiary education. In 1962, the British Robbins Report revealed statistical evidence indicating how far the Federal Republic lagged behind most Western European countries concerning expenditure on and admission rates to tertiary education. The deficit of qualified school-leavers and teachers was seen as a threat to Germany's economic future and societal well-being (Turner, 2001, p 17). In the early 1960s, politicians and policy experts of the conservative side of the political spectrum promoted an increase in the number and quality of academically qualified professionals by greater investments in education. Additionally liberals and social democrats related to issues of social equality and further democratisation while demanding a right to higher education for every citizen. Backed by a broad political consensus, Germany's system of tertiary education experienced a remarkable period of growth with respect to the enlargement of the student body, as well as the expansion of university facilities. Specialised institutions and engineering schools were given university status and 18 new universities were founded (Katzenstein, 1987, p 303/304).

However, these innovations did not touch the very structure of the post-war university in Germany. It was still controlled by the professorate through a system of academic autocracy. As early as 1957, experts and critiques of tertiary education alike had already recommended structural and institutional reforms of the German University, which regarding its decision-making procedures and administrative set-up stood out for its remarkable lack of democracy. Administrative reform finally found a consensus throughout the political spectrum when the student

movement confronted the Great Coalition of CDU/CSU and SPD (1966-1969) with the demand to install participatory democracy as a prime principle of university organisation. Massive student activism in 1967 resulted in legislative activity throughout the German Laender. By 1973 these had led to radically changed university structures in the Federal Republic, which also had a significant impact on the relationships between universities and government departments responsible for tertiary education in the German Laender. First and foremost government legislation drastically reduced the professors' power monopoly. The new power structure translated into a situation in which state bureaucracy, respectively government departments for research and education of the German Laender became very important policy players, thus depriving universities, to a large extent, of their former autonomy.

The most important administrative and structural reform has been the introduction of the *Gruppenuniversität* that is based on the core idea of status-group representation within decision-making procedures. The prime reason for establishing the *Gruppenuniversität* was to democratise decision-making processes by shifting the power from the faculty of full-professors to the corporate representation of the members of the University including students, young researchers and lectures as well as supporting staff personnel. However, implicit dissonance between faculty members and the increasing economic and political diversity of the burgeoning numbers of new university students had important consequences. With the introduction of the *Gruppenuniversität* came a sharp politicisation of factions within the university, which made consensus

solution elusive and difficult to achieve. Long-term strategic development and management related planning is hard to accomplish within the framework of the *Gruppenuniversität*, where the factions are primarily investing time and energy for status-quo stabilisation. Therefore, the introduction of the *Gruppenuniversität* brought about a significant increase in power of state bureaucracy (Turner, 2001, p 20).

Besides significant changes of universities' decision-making procedures, further reform initiatives were taken by Germany's federal government in the 1970s, which aimed at achieving social equity within the student community. The government's commitment to social equality made way for two developments. The first was the introduction of a means-tested system of grants for both university and secondary school students in 1971. The second was the introduction of a new type of tertiary education institution, which shows similarities to the British polytechnic and which is called *Fachhochschule* in Germany. *Fachhochschulen* are primarily designed to serve the labour market by offering shorter educational programs with strong focus on vocational training. A new concept of higher education was developed parallel to the introduction of the *Fachhochschulen* and widely discussed among policy experts: the *Gesamthochschule* or comprehensive university, which is an amalgamation of the research oriented university and the *Fachhochschule*. *Gesamthochschulen* were introduced in order to do away with institutional barriers blocking the way for students from lower social strata (Katzenstein, 1987, p 306). Originally being placed on the political agenda by the conservative government of Baden-Württemberg in

the south of Germany, the idea of “comprehensive universities” was strongly taken up by social democratic governments in the north of Germany. Due to the north-south divide, with respect to comprehensive universities, Gesamthochschulen were primarily founded in German Laender run by social democratic governments (Lüth 1983).

University reform policy reached its peak in 1975, when expenditure on higher education was twice as high as in 1970 and the number of faculty positions in the tertiary sector had quadrupled in comparison to 1965 (Turner, 2001, p 23). At the end of the 1970s, the political climate changed in the context of tighter budgets and disenchantment with the reform projects and their outcomes. Although the necessity of broader access to higher education was still widely acknowledged, federal and Laender budgets for higher education failed to match the increase in student numbers. Instead policy planning at the federal level projected decreasing student enrolments in the years to come, basing their numbers strictly on birth rates and not anticipating broader participation in higher education (Katzenstein, 1987, p 307). The result was wildly mistaken projections that vastly underestimated the current and future size of the student body. The mismatch of increasing student numbers and tightening budgets for higher education resulted in chronic under funding of German universities.

In Germany, at the beginning of the 1980s higher education politics reached the end of their conjuncture cycle: After euphoria (1967 to 1970), with an emphasis on growth and political agenda setting, there followed activism (1969 to 1974) on both sides of the political

spectrum, which finally lead to the need for technocratic accommodation (1974 to 1980). The new *Hochschulrahmengesetz* (University Framework Law) of 1976 was a minimal consensus that did not succeed in reforming the content of studies and their organisation, as originally intended (Turner, 2001, p 25). Instead, in the late 1970s, the German system of higher education underwent a significant process of massification, which, however, from a political point of view was labelled “Opening of Higher Education”, and which was achieved without any increase in staff numbers or allocation of resources.

By the early 1980s, the consequences of the expansion policy resulted in evident overcrowding of the universities, especially as the 1981 to 1983 recession led to further cuts in higher education budgets. The new conservative and liberal coalition, which was elected in 1983, gradually revisited and partially undid the results of the prior reforms. Despite opposition from the social democrats and education experts, the 1971 grants program for students was changed to a loan program and the long-term education plans, which had been initiated in 1969, were not continued (Turner, 2001, p 26). Additionally, the University Framework Law was revised: the aim of building up more comprehensive universities was abolished and the position of tenured staff was again strengthened against other groups of the university (Katzenstein, 1987, p 309). In 1988, the Science Council (*Wissenschaftsrat*) stated that, although student enrolment numbers had been continually increasing, the expenditure for higher education had in fact been reduced by 2,4% since 1975 (Turner, 2001, p 27). Resulting from budget cuts, the quota of students receiving loans fell from 27% in 1982 to 23% in 1988,



and at the same time the percentage of children from working-class backgrounds among students decreased from 23% in 1982 to fewer than 7% in 1986 (Turner, 2001, p 148).

From a retrospective point of view the outcome of the German university reform movement, including the high-rising demands of the 1967 students protest and its political aftermath, was relatively meagre. The introduction of the *Gruppenuniversität* had not achieved its primary goal of democratising decision-making processes within German universities. The same holds true for attempts to democratise the staff structure of German universities, offering prestigious positions in the academe and administration also to less-advantaged groups of society including women. In the 1980s the question of underrepresentation of women in positions of authority became an important issue of the German higher education policy discourse. Since then various measures of affirmative action including the establishment of women's representatives at the faculty as well as the university level have been introduced without however having a significant impact (BLK 2002). German universities turned out to be very conservative institutions, with significant potential for obstructing major changes, if they are coming from within. However, due to the administrative reforms alongside the introduction of the *Gruppenuniversität* German universities lost power and autonomy on behalf of the Laender bureaucracies. An in-depth reform of university programs and curricula is still on the agenda. Nowadays curricula reform is primarily triggered by budget constraints and not by considerations of equity and social equality. Student teacher ratios in many

subjects have continuously deteriorated since, and the autonomy of Germany's higher education institutions was considerably and persistently reduced. As a reaction to the bias between effective student numbers (which before German reunification was over 1,5 million) and stagnating equipment in terms of academic personnel and facilities, the conservative government installed three special Higher Education Programmes (*Hochschulsonderprogramme*) in 1989, 1990 and 1996. The first and the second included additional yearly funding of 300 million Deutschmarks until 1995 to the universities and 4 billion Deutschmarks in ten years for the support of up-and-coming academics. The third programme included 3,6 billion Deutschmarks until 2000, uniting the support of up-and-coming academics with the reorganisation and renovation of the universities of the former GDR (Turner, 2001, p 28). During this period, no systematic reforms in the fields of university organisation, personnel management, admission policies, organisation of study programmes or degree structures were undertaken.

The dissolution of the GDR in the early 1990s led to a comprehensive restructuring of higher education in the East along the model of the West. The last GDR minister of higher education, Hans Joachim Meyer, in an ironic reference to Nietzsche spoke of a "transvaluation of values" in 1991. West Germany's higher education system, which had been widely regarded as in deep crisis in the late 1980s, suddenly became the role model for the reform of the tertiary sector in East Germany. More ironic still, the term used for the wholesale transfer of West German institutions to the East was "renewal." Some innovations long proposed in the West, such as efforts

to support interdisciplinary research and teaching programs, as well as improved co-operation between universities and extra-university research institutes, were introduced in the new German *Laender*. The chance, however, to use this historical event as an opportunity for a comprehensive and encompassing reform of the German system of higher education was largely missed. One may even argue that the reunification offered the West German university system a legitimate excuse to postpone its own reform for a few years (Dürkop, 1999).

In the 1990s, university reform became a nationwide topic again. The massive growth of the student body and the significant increase of university graduates translated into an intensified interest in higher education issues. By and large there are currently three topics on the agenda: Firstly the question of how to increase the effectiveness of the German system of tertiary education, secondly the question of how to improve the efficiency of administrative structures and internal management procedures of universities as loosely coupled organisations, and finally the question of how to keep up with the encompassing trends of globalisation or more specifically Europeanisation.

The topic of effectiveness is primarily related to the relationship between higher education and the world of work. In the course of massification of higher education the quantitative match or mismatch of university graduates and the needs of the labour market has become a major concern for policy experts. While in the 1960s and 1970s the expansion of tertiary education had been accompanied by the massive growth of the public sector, since then due to

significant changes of the economy and its impact on the labour market, the professional future of university graduates has become more and more insecure. Graduates are expected to be trained for a constantly changing economy, serving the needs of a knowledge-based society. Universities are considered to put a strong emphasis on life-long learning and to provide courses, which devote great attention to generic competencies and social skills.

At the same time effectiveness of German study programs is judged against the background of internationalisation of higher education in the European Union and beyond. Mobility of labour and transfer of researchers and students throughout the world are demanding mutual recognition of qualifications among nation states. Collaboration and exchange of staff and students emphasise the need for mutual adjustments of university systems and curricula. Against the background of increased commercialisation, policy experts are facing the challenge of assuring the competitiveness of German Universities, thus addressing the needs of an increasingly international labour market. Up until now, university planners and administrators have made efforts to support co-operation projects and to introduce credit point systems, which facilitate student mobility. Additionally, in 1998 Bachelor's and Master's degrees, in parallel to the traditional German degrees, were made legitimate by federal law in order to shorten study periods, make international mobility easier for German students and German degrees more attractive for international students. Due to intensified international and European competition, quality issues of higher education have found their way back on the political agenda in Germany.

Budget constraints as well as decision-making deadlocks related to the German *Gruppenuniversität* have put the topic of efficiency on the political agenda. While massification drew the attention to issues of quality in higher education, at the same time, it had removed its principal source and justification – the exclusiveness of an elitist system. The German government was confronted with the fact that the taxpayers' investment in higher education and the students' need to receive good quality teaching based on thorough information justified closer assessment of higher education outcomes. Therefore, in the 1990s economic efficiency became the key word of higher education politics. Posed a bit cynically, the new question was thus: How can the public be reassured that the quality of German higher education is assured if public funding declines and the participation rates increase?

The economisation of the higher education agenda in Germany was enforced by the trends summarised under the concept of "New Public Management" (NPM), which have their origins in the United Kingdom, New Zealand and Australia. The New Public Management approach stands for the introduction of management instruments from the private sector into public organisations, thus viewing state bureaucracy as suffering from various deficits such as inefficiency and inflexibility (Pollitt/Bouckaert, 2000, p 6ff). In the late 1990s, policy experts finally came to the conclusion that traditional governance of German universities, respectively 'governmental control' via input- and ex-ante-oriented measures, had to be changed and replaced by 'governmental supervision' (Maassen, 1997, p 115). New mechanisms of output- and product oriented ex-post control have

been proposed and partially introduced in some *Laender*. These include, for example, secure or fixed budgets (*Globalbudgets*) replacing the old line-item budgets to offer the university the possibility to manage its financial resources autonomously and efficiently (Turner, 2001, p 200). Equally inspired by the NPM are ideas such as increasing the competitiveness among German universities and making them create an individual profile. This approach is linked to the idea of performance-related public funding and does require increased autonomy on the universities' part concerning self-governance, financial management, specialisation of curricula and the possibility to choose their students (Turner, 2001, p194). Apart from political rhetoric, however, departments of research and education of *Laender* government are very reluctant to loosen their grip on German Universities. *Globalhaushalte* have not yet been institutionalised equally in Germany. Universities have not been given the right for student selection.

Accordingly, what has been established for many years in neighbouring countries, namely evaluation and ranking procedures, has long been a taboo in Germany. Today, internal and external evaluation processes of teaching and research activity are partially accepted as a means to assure quality on department and institutional level. Finally, with the question of quality assurance, the academic personnel have become a focus of attention. Critique centred on the unlimited individual freedom of tenured staff, which often undermines collective responsibilities of the universities. To increase commitment of full professors, performance related payment has been proposed (Turner, 2001, p 258). However, due to the

civil servant status of German professors, salary reforms introducing a close link between job performance and monthly payment are very difficult to be granted by law. For the time being German universities are not offering any incentives or rewards for outstanding professional achievement. With respect to recruitment processes and career tracks of German academics, the current German federal government introduced a significant change in 2000 by establishing the so-called “junior professorship” as a step on the career ladder that replaces the traditional German *Habilitation*, the second thesis after the doctorate. By law *Habilitation* no longer serves as a prerequisite for taking up a professorship teaching position at a German university. However, critiques of the new procedure convincingly argue that junior professorships are also used for covering budget-cuts. According to this argumentation junior professors are not thoroughly accepted and treated on equal terms by the full professors, since they are not tenured. Nevertheless, junior professors have to take up the full load of teaching obligations as well as with the time consuming commitments connected to the *Gruppenuniversität* such as serving on various committees and self-governing bodies of the university. Finally, junior professors, despite their quasi-professorial status, are nevertheless expected to write a “second book” as a functional equivalent of the former *Habilitation*.

The third topic of Germany’s university reform discourse, the question of internationalisation and more specifically Europeanisation is closely linked to the issue of governance. Up until recently the models applied to characterise the regulatory environment of universities have been based on the assumption that

the environment of the university is primarily dominated by the national state and its various agencies of governmental and steering control. However, starting in the late 1970s a gradual change in the extent to which higher education policy was nationally determined and orientated can be observed. Since then national governments have increasingly begun to co-operate with each other on topics of education and tertiary education respectively. Furthermore, international organisations such as the OECD and UNESCO have become very important players within the international policy network of higher education. Today reports issued by OECD and UNESCO have a significant impact on the political debate in the various nation states. However, without any doubt the most important development triggering a further internationalisation and even convergence of tertiary education came about by the initiatives of the EU Council of Education Ministers, that extended the co-operation to the level of higher education systems, and which is generally referred to as the Bologna process. In 1999, 29 European countries, among them Germany, signed the Bologna Declaration, thus agreeing to harmonise their systems of tertiary education. Up until now this had lead primarily to the reform of degree structures to an undergraduate-graduate system. In accordance with the content of the Bologna declaration, the international dimension of policymaking in the field of tertiary education has also been strengthened by referring primarily to the method of "open co-ordination" as a tool for mutual and flexible adjustment of higher education policy, which is still inaugurated at the level of the national state. Including the field of tertiary education, European policy-making is aiming at the achievement of agreements on co-operation and even harmonisation of



nation based policies. Against this background European systems of tertiary education are in a process of mutual adjustment and convergence that in the long run will lead to a more or less unified European higher education system.

This volume of German Policy Study highlights current policy developments in tertiary education in Germany. Starting with two articles providing a perspective from the outside on higher education reform and policy developments in Germany, the volume continues with two contributions reflecting on the outcome of reform policy with respect to women and students as two significant stakeholders in the university community. The volume concludes with two contributions written by policy experts, providing an outlook on further developments alongside the processes of Europeanisation of tertiary education in Germany.

In his contribution *“Higher Education, Internationalisation, and the Nation State”* Jürgen Enders draws our attention specifically to the building-up of a new governance structure in Europe that started with the Bologna Declaration and was continued alongside the meetings of the European ministers of education in Paris and Prague. Furthermore, with special reference to current reforms in Germany, particularly the introduction of “junior professorship” and the two layer system of the bachelor’s and the master’s degrees, he takes a closer look at the differences between the Anglo-Saxon tradition and the continental European university tradition.

In their contribution *“A comparative view on policy trends in Western European Higher Education”* Jeroen

*Huisman and Frans Kaiser* are presenting the results of a comparative policy analysis of nine European countries including Germany. According to their results major issues, which are unanimously on the political agenda at the national state as well as the EU level of policy development, are, among others, financing, quality assurance of university teaching, and accreditation of Bachelor and Master curricula. These issues are according to Huisman and Kaiser closely linked to the encompassing processes of internationalisation and globalisation of higher education.

The article by *Christa Thoben* "Campus Europe" shows that Europeanisation is already very much on the way. Up until now eleven countries have joined forces to intensify scientific co-operation and networking at the level of selected universities trying to lay down the foundation of a unified European research arena which in the future will be able to meet the challenges of their American counterparts such as Stanford, Yale or Harvard Universities with respect to scientific competitiveness.

Against the background of intensified internationalisation *Agnieszka Majcher*, in her article "Gender Inequality in German Academia and Strategies for Change", takes a critical look at academic staff composition of German Universities. Analysing career paths in German academia she pays special attention to the structural barriers for women moving up the career ladder. Furthermore, she analyses the impact of the various affirmative action programs, which try to enforce gender equality in German academia and which up until now have not

resulted in a major change of academic staff composition at German universities.

The contribution “Theses on the Status quo and Future Challenges of Higher Education” by *Hans-Uwe Erichsen* clearly indicates from a policy advisor point of view what should be on the German higher education policy agenda and what has to be changed with respect to administrative set-up, governance structures, and funding procedures in order to enable German universities to cope with the challenges which will come about along with the process of Europeanisation of higher education.

In accordance with Agnieszka Majcher, *Freia Stallmann* also comes to a rather sceptical conclusion with respect to the reform-minded policy initiatives currently inaugurated by German politicians in the area of tertiary education. Referring to the introduction of Bachelor’s and Master’s degrees as a case in point of German higher education reform policy, she portrays these initiatives as a tricky strategy in order to disguise the fact that there are no structural reforms under way. In her opinion the very nature of the German University, based on academic freedom and autocracy on behalf of the professorate, translates into an organisational culture of anonymity and arbitrariness, which undermines joint efforts to develop high quality university courses and curricula.

## **Notes**

<sup>1</sup> A university governed by representatives of the various constituent groups of academic and non-academic employees and students.

<sup>2</sup> One has to take into account that at the same time the percentage of blue-collar workers among the employees was reduced from 54,2% in 1981 to 51,5% in 1986 (Turner, 2001, p 148)

## **References**

Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (BLK) (2002): Frauen in Führungspositionen an Hochschulen und außerhochschulischen Forschungseinrichtungen", Sechste Fortschreibung des Datenmaterials, Bonn: BLK.

Dürkop, Marlis (1999): German reunification and opportunities for reform: an epilogue. Conference Paper of the Conference: Divided by Unity? Rebuilding Culture and Society after 1989: The Case of the Universities. Organised by the Heinrich Böll Foundation in cooperation with the Canadian Centre for German and European Studies at York University Toronto, Toronto 19. November 1999. Berliner Hochschuldebatten: [www.hochschuldebatten.de/papers.htm](http://www.hochschuldebatten.de/papers.htm), accessed 04 January 2003.

Ellwein, Thomas (1992): Die deutschen Universität. Vom Mittelaltar bis zur Gegenwart, Frankfurt a.M.: Hain.

Humboldt, Wilhelm von, reprinted in 1968: Ueber die innere und äussere Organisation der hoeheren wissenschaftlichen Anstalten in Berlin, in: Wilhelm von Humboldt. Gesammelte Schriften. Preussische Akademie der Wissenschaften. A. Leitzmann, B. Gebhardt, W. Richter (Ed.), Berlin/Leipzig 1903-1936, Volume X.

Lüth, Christoph (1983): Gesamthochschulbildungspolitik in der Bundesrepublik Deutschland. Zur Gesamthochschuldiskussion und Hochschulgesetzgebung (1967-1976). Hochschulrecht des Bundes, Band 5, Bad Honnef: Verlag Karl Heinrich Bock.

Katzenstein, Peter Y. (1987): Policy and politics in West Germany. The Growth of a semisovereign State, Philadelphia.

Maassen, Peter A. M. (1997): Quality in European Higher Education: recent trends and their historical roots. In: European Journal of Higher Education. Vol 32. No 2. PP 111 – 127.

Reinschke, Kurt J. (1994): Bolschewisierung der ostdeutschen Universitäten nach dem Zweiten Weltkrieg, dargestellt am Beispiel der Universität Leipzig und der TH Dresden. In: Strobel, Karl: Die Deutsche Universität im 20. Jahrhundert. Abhandlungen zum Studenten- und Hochschulwesen, Volume 5, Greifswald, p 116-163.

Pfetsch, Frank R. (1994): Wissenschaftspolitik in Deutschland. Drei Interaktionsmodelle: Weimar,

Berlin, Bonn. In: Strobel, Karl: Die Deutsche Universität im 20. Jahrhundert. Abhandlungen zum Studenten- und Hochschulwesen, Volume 5, Greifswald, p 218-237.

Politt, Christopher and Geert Bouckaert (2000): Public Management Reform. A comparative Analysis, Oxford.

Turner, George (2001): Hochschule zwischen Vorstellung und Wirklichkeit. Zur Geschichte der Hochschulreform im letzten Drittel des 20.