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***Funding Systems  
and Their Effects on  
Higher Education Systems***

***COUNTRY STUDY – GERMANY***

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## Executive Summary

As per March 2006, Germany had a total of 1.9 million students and 334 **state and state-approved higher education institutions** which are of different profiles: 117 **universities**, 159 **Fachhochschulen** (universities of applied sciences), and 58 **colleges of art and music**.<sup>1</sup> Solely universities and equivalent institutions of higher education have the right to award the doctorate (Promotion) and a post-doctoral qualification to teach in higher education (Habilitation). Research (particularly basic research) and the promotion of junior academics are also distinctive features of universities.

According to the German Constitution (Basic Law) the **higher education system** in Germany is, in principle, a matter that the individual **federal states (Länder)** are responsible for autonomously. Because of this so called principle of state sovereignty in cultural affairs, the legal position of the higher education institutions, their financing as well as the instruments of governance and management are regulated by the respective higher education acts of the Länder. The universities are incorporated in the state administration as public corporations - this particularly concerns budget, economic and staff matters. Their **annual budgets are part of the Länder budgets** which are adopted by the respective Länder parliaments.

The great majority of funding for higher education is provided from **public sources**. As the institutions of higher education are public institutions of the Länder, consequently, their current expenditure for research and teaching (salaries, material and operating costs) are being primarily funded through the Länder budgets. Costs for larger investments such as buildings and large scale scientific equipment have been shared so far between Bund and Länder at fifty per cent each as part of the joint task of construction in higher education. Recently, a lengthy debated reform of federalism has been adopted by the parliament with the aim to de-merge the competences between Bund and Länder. As a result, the Länder will receive no funds for large investments from the Federal Government in future.<sup>2</sup>

In recent years, the ideas of New Public Management (NPM) have been gradually adopted in higher education in Germany. New Public Management in German higher education focuses on a model of governance that ensures autonomy at decentralised level but assures that central targets are achieved via competitive business instruments.

In consideration of the fact that Germany is a federal state and that the individual federal states (Länder) are responsible for funding higher education, the national study for Germany

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<sup>1</sup> Figures according to Hochschulrektorenkonferenz, [www.hochschulkompass.de](http://www.hochschulkompass.de)

<sup>2</sup> This does not concern the joint task of funding research which refers mainly to the large sector of extra-university research and to the central public funding organisation for academic research in Germany, the Deutsche Forschungsgemeinschaft.

has to be based on the individual higher education systems of the Länder. The German study describes the funding and governance structures in **four Länder** within the Federal Republic of Germany with different political and financial conditions: the territorial states **Baden-Württemberg**, **Bayern** and **Nordrhein-Westfalen** and the city state **Berlin**. Out of those Länder four traditional, research oriented universities with high student numbers were chosen as reference points: The **University of München** (Bayern), the **University of Heidelberg** (Baden-Württemberg), the **University of Münster** (Nordrhein-Westfalen) and the **Free University Berlin**. All these universities are among the ten major universities in Germany. In this context, the study concentrates on three main groups of **stakeholders** and decision-makers: the university chancellors, the heads of the university departments in the ministries of sciences and research in the respective Länder and the chairmen of the higher education commissions in the respective Länder.

In all Länder included in the study and beyond, the following instruments are used to establish a relationship between funding and strategic objectives of national higher education policies: **Higher education pacts** or contracts have been concluded between governments and universities. They grant planning security for the time of an election period, whereas, in return, the universities committed themselves to financial cuts to a greater or lesser extent; in some Länder, these funds are being reinvested into the higher education sector for strategic purposes. The planning security is appreciated highly by the universities in times of declining public budgets. By globalising the university budgets and making them more flexible, the Länder delegate responsibility in financial matters to the institutions. In addition, a large number of competences on behalf of staff, appointments, examinations and internal management are assigned to the universities.

All Länder have some years of experience with models of **performance and capacity-related allocation of funds**. The part of the budget varies which is allocated according to parameters. Universities also use parameter models for their internal fund allocation. In particular the appointment policy of the universities is considered as an important instrument to manage resources because it fixes financial decisions from strategic aspects on a long term. Furthermore, target agreements are used as instruments of governance between Land and universities. Some universities already have positive experiences with target agreements between university board and faculties. Because more financial autonomy and planning security results in high requirements for responsibility and transparency, the universities implement cost and activity accounting. In addition, standardised reporting systems are being developed.

**Ministries** withdraw from many areas of centralised financial governance and management in order to obtain better results in higher education policy. The shift from an input-oriented model of detailed governmental management to an output-oriented model is characterised by

the use of **target oriented funding based on performance parameters** and the introduction of instruments of business administration such as **target agreements** and **cost and activity accounting**. Most Länder are in a state of changeover. The old instruments do not work as before and the new ones are currently being implemented. From the point of view of the ministries, the cooperation between the state and the universities in the process of reform will facilitate the adoption of new government instruments as well as an effective use of funds. However, the state is aware that it must not replace centralised governmental management by detailed input requirements when implementing the new instruments (e.g. target agreements). More responsibility for the universities has to be associated with less exertion of influence by the state.

The **parliaments** have approved the way the state withdraws from centralised governmental management. They retain the duty to **provide a legislative framework**. However, the scope of Parliaments decrease by the time they withdraw from detailed governmental management. In parts, the loss of strategic competences is being regretted because the state remains the main source of finance of the higher education institutions. As the universities are funded by public resources, the state is also responsible that finances are being used in an economical way and that universities assume responsibility for this. Hence, universities are requested to give an annual report on the attainment of the stipulated goals and the use of their resources.

The **universities** appreciate the new form of “distant governance” (arms length governance) and make better use of their financial resources by implementing new models of internal fund allocation and target agreements. However, the experiences made with the new instruments are different and have to be seen in connection with the policy of the individual Land.

The **University of Heidelberg (Baden-Württemberg)** sees a correlation between the model of financial governance of the Land and the instruments used by the university. It has made positive experiences with global budgets, with the definition of strategic goals, and the use of target agreements between university management and faculties.

From the point of view of the **University of München**, there are three main conflicts of objectives which should be pointed out: There is a conflict between the demand to attract the best researchers in international competition and the concept for a state-wide cluster of subjects and disciplines with complete utilisation of capacities. Second, the aim to base admission to higher education on the appraisal of aptitude by the universities is in contrast with the imperative to increase the number of students. Third, the aim to create more scope of development for research is contradictory to the increase of teaching loads that are already considerably higher in comparison with international practice. It is important to specify these conflicts of objectives because they have effects on strategic decisions and on the use of instruments of governance.

The **Free University Berlin** states that the experiences made with the new form of “distant state governance” (arms length governance) via higher education contracts (which can be regarded as target agreements) are throughout positive because budget cuts were unavoidable in view of the financial situation in Berlin. In the face of decreasing finances, the university had to concentrate funding on selected areas with high potential. For internal management purposes, the Free University Berlin has used a performance-based fund allocation model and target agreements between university board and faculties for many years. The binding character of the target agreements is high. They have enlarged the scope of action for the university management to a great extend. All together, the positive effects on increased performance in the fields of research, third-party funds and teaching are traced back to the fact that the fund allocation model in the state Berlin is a competitive model, as well as it is the internal fund allocation model of the Free University Berlin.

From the point of view of the **University of Münster**, the first target agreements that were concluded with the Land did not have great effects. On the other hand, the innovation fund supported strategic decisions of the university in respect of new research foci and appointments.

For several years, two general trends of the German finance system could be observed: On the one hand, the German higher education system suffers from **under-financing** which becomes apparent by comparing large research oriented universities in Germany with European top universities. Moreover, the German universities have higher numbers of students and worse student-staff-ratios. On the other hand, the proportion of basic funding that can be used without restrictions is decreasing while the **proportion of programme-linked earmarked funding is increasing**. This effect contributes to split up the universities' foundation of finances and can affect the strategic aim of a research university to promote outstanding research by concentration on research and not by short-term pressure to acquire funds.

Baden-Württemberg, Bayern and Nordrhein-Westfalen will open up an additional financial source for the universities by introducing **tuition fees** up to 500 Euros per semester in 2007. Tuition fees are designed to improve student support and the range of courses offered. In the long run, ministries and universities hope to achieve more motivation of students. However, universities have to meet the challenges that are associated with the introduction of tuition fees. Apart from setting up an appropriate management they have to make provisions that grants for student scholarships and loans will be provided, and there have to be rules for exemptions. Anyhow, tuition fees will not solve the financial problem of the universities.

In the course of change from an input-oriented to an output-oriented concept of governance, the ministries of sciences increasingly take over **strategic tasks** in respect of the general framework and objectives of higher education, contractual agreements between state and universities, and counselling and support of the institutions.

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## 1 Introduction

The national study for Germany carried out by the Bavarian State Institute for Higher Education Research and Planning is part of an international comparative study on funding systems and their effects on higher education systems which is conducted by twelve states within the OECD Programme on Institutional Management in Higher Education (IMHE). The overall purpose of the international study is to characterise funding systems and their effects on higher education systems in selected countries from the point of view of different stakeholders. In consideration of the fact that Germany is a federal state and that the individual federal states (in the following named Länder) are responsible for funding higher education, the national study for Germany has to be based on the individual higher education systems of the Länder. For the purpose of this study, four Länder and four traditional, research-oriented universities which rank among the ten major universities in Germany were chosen as reference points: Bayern/University of München, Baden-Württemberg/University of Heidelberg, Nordrhein-Westfalen/University of Münster, Berlin/Free University Berlin.

## 2 Results

### 2.1 Main Features of the Funding System of Higher Education: Federal System, State Funding, New Public Management

According to the German Constitution (Basic Law) the higher education system in Germany is, in principle, a matter that the individual **federal states (Länder)** are responsible for autonomously. Because of this so called principle of state sovereignty in cultural affairs, the legal position of the higher education institutions, their financing as well as the instruments of governance and management are regulated by the respective higher education acts of the Länder. The universities are incorporated in the state administration as public corporations - this particularly concerns budget, economic and staff matters. Their annual budgets are part of the Länder budgets which are adopted by the respective Länder parliaments.

The great majority of funding for higher education is provided from **public sources**. As the institutions of higher education are public institutions of the Länder, consequently, their current expenditure for research and teaching (salaries, material and operating costs) are being primarily funded through the Länder budgets. Costs for larger investments such as buildings and large scale scientific equipment have been shared so far between Bund and Länder at fifty per cent each as part of the joint task of construction in higher education. This article of the basic law is currently under discussion in parliament and will be given up most likely, so

that, in future, the Länder will receive no funds for large investments from the Federal Government.<sup>3</sup>

In recent years, the ideas of **New Public Management** (NPM) have been gradually adopted in higher education in Germany. NPM means the transfer and adoption of practices and instruments of business administration in the higher education sector, the focussing on efficiency and on empirical data (Ziegele, 2005). In general, NPM in higher education attaches great importance to the results achieved by the institutions instead of detailed regulations at the outset. As many decisions as possible should be made at decentralised level, at the universities, because they are the first to know relevant steering information. Therefore, universities in all Länder are given more responsibility for their financial management. In doing so, the output-oriented model of governance replaces the traditional input-oriented model of detailed governmental accounting. In addition, a large number of competences on behalf of staff, appointments, examinations and internal management are delegated to the universities. However, there is the concern of the state as the main money source for good governance. New Public Management in German higher education therefore focuses on a model of governance that ensures autonomy at decentralised level but assures that central targets are achieved via competitive business instruments.

## **2.2 Formal, Explicitly Stated Interrelationships between the Funding System and National Higher Education Policies: Higher Education Pacts, Target Agreements, Formula-Based funding, Global Budgets, Reporting**

In all Länder, the following instruments are used to establish a relationship between funding and strategic objectives of national higher education policies:

All over Germany, **higher education pacts** have been concluded as contractual agreements between the Land as the responsible body for higher education and the higher education institutions.<sup>4</sup> They provide the universities with financial planning security for an election period (usually four or five years) by stipulating the negotiated budget for the validity period of the contract – although the public budget might be declining in general. As a countermove, budget cuts to a greater or lesser extent have to be agreed on a long term basis. In some Länder, these funds are being re-invested into the higher education sector for strategic purposes. Although the pacts bring about budget cuts in most Länder, they provide the institu-

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<sup>3</sup> This does not concern the joint task of funding research which refers mainly to the large sector of extra-university research and to the central public funding organisation for academic research in Germany, the Deutsche Forschungsgemeinschaft.

<sup>4</sup> Different terms are used to indicate the political intention behind these agreements: in Baden-Württemberg the higher education pact is called Solidarity Pact, in Bayern Innovation Pact, in Nordrhein-Westfalen Quality Pact, and in Berlin the term is Higher Education Contracts.

tions with long term planning security. Higher education pacts are supplemented by **target agreements** between the respective Land and the individual universities to ensure that specified aims of higher education policy are achieved in spite of decentral financial management at level of the universities.

All Länder have some years of experience with individual models of **performance and capacity related allocation of funds**. Universities also use parameter models for their internal fund allocation. An important instrument to manage resources is the appointment policy of the universities which fixes financial decisions from strategic aspects on a long term basis.

The development of suitable instruments for the financial management of the universities implies the introduction of **global budgets** or flexible budgets on the basis of governmental accounting, the introduction of **business-accountancy** with a year-end fiscal statement, **formula based financing** on the basis of performance and capacity related fund allocation models and the introduction of **reporting systems**.

In **Baden-Württemberg**, the Solidarity Pact was signed in 1997 between the Prime Minister, the Ministers of Finance and of Sciences and the universities. The pact comprised on one hand the confirmation of financial planning security for a period of five years which was then extended to ten years, the continuation of the budget funds at the level of the year 1997 and the exemption of additional budget cuts. On the other hand the universities committed themselves to reduce 1500 posts within 10 years (10 %). In addition, the state introduced decentralised financial management and started globalising the university budgets. Already in 1999, a formula-based fund allocation model was introduced after lengthy negotiations between state and universities. The model is made up of a quantity-oriented part (five indicators relating to the output of the universities, e.g. the number of graduates) and an incentive-oriented part (nine indicators relating to the universities' performance, e.g. third party funds); each part receives 10 % of the state grant.<sup>5</sup> In future, information for university financial management will be provided by cost and activity accounting and by a reporting system. The Land strives to solve the tension between planning security for the universities and political governance through a multidimensional financing system. It will consist of a model with three pillars comprising basic funding, performance related fund allocation and target agreements.

In **Bayern**, flexibility within governmental accounting and decentralised financial management was introduced in 1998. This implies regulations like mutual convertibility of budget items, the possibility to transfer funds to the next fiscal year, and 'capitalisation' of the funds for unoccupied posts. An output-related allocation of the funds for teaching and research has been practised since 1993 and, on the basis of a differentiated performance and capacity

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<sup>5</sup> Cp. Müller-Arens, Hans-Jürgen: Hochschulfinanzierung und -steuerung in Baden-Württemberg. In: Beiträge zur Hochschulforschung 1/2006, p. 94-97.

related fund allocation model, since 1998. The ministry states that each of the fund allocation models has its weaknesses such as too much complexity and lack of transparency which might prevent acceptance.

Important innovations and new instruments of governance were implemented by the higher education reform in 2005: the Innovation Pact, the Optimising Concept and target agreements (contracts). Planning security as regards state funding is guaranteed by the so called Innovation Pact concluded between the Prime Minister, the Minister of Finance and the Minister of Sciences and the universities until 2008. It is unique in that this higher education pact is not linked to budget cuts. Indeed, the universities agreed to participate actively in optimising the range of subjects and disciplines offered throughout Bayern. In this connection, 600 posts have to be delivered into an innovation fund at central level. They will be given back to the universities in a competitive way. In addition, the state adds 140 posts and 170 Million Euros to the innovation fund. Furthermore, target agreements are being concluded between the state and the universities on the basis of jointly worked out guidelines.

In **Berlin**, higher education financing and governance is characterised by contractual agreements of higher education objectives and targets between state and universities. The contracts ensure planning security under the circumstances of the restrictive budget situation in Berlin and grant extensive autonomy. The first contracts were concluded in 1997. They ensure the level of the state grant for the period of validity of the contract on one side and require a certain standard performance by the universities on the other side, e.g. a defined number of study places. According to the contracts for the period 2006 to 2009, the pay level of the three universities in Berlin will be cut back about 75 million Euros. In addition, they accepted a one-time budget cut of 54 million Euros for 2004 and 2005. Higher education contracts also define certain strategic goals such as the introduction of bachelor and master courses, the increase of student capacities at the universities of applied sciences, the cooperation of the colleges of arts and music and others.

All higher education institutions in Berlin have a global budget which comprises non personal and personal funds and funds for investments (buildings, large-scale equipment). Against the background of the declining budgets, the performance oriented allocation of funds<sup>6</sup> has a subsidiary function. It is divided into indicators for research and indicators for teaching. About 30 % of the budget is assigned to by a respective model. Higher education institutions in Berlin are obliged to give an account of their performance for the parliament once a year on the basis of a set of data which has been agreed upon between the contractual partners. In addi-

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<sup>6</sup> Cp. Strobel, Ilka: Neue Finanzierungs- und Steuerungssysteme und ihre Auswirkungen auf die Hochschulen. Die Sicht der Senatverwaltung für Wissenschaft, Forschung und Kultur des Lands Berlin. In: Beiträge zur Hochschulforschung 1/2006, p. 70-72.

tion, a supra-regional comparison of costs and performances plays a role in assessing the higher education institutions' performance and efficiency.

In **Nordrhein-Westfalen**, the government concluded the so-called Quality Pact with the higher education institutions in 1999. The institutions were guaranteed planning security for the following five years and the exemption of all budget restrictions; meanwhile the pact has been extended to ten years. Instead, 2000 posts were to be cut within ten years. Of these, 1626 posts already had remarks that they should be discontinued in future as a result of earlier cuts. The monetary equivalent of 1000 posts flows into an innovation fund out of which innovative areas of teaching and research are funded with a sum of about 50 million Euros per year, in particular in connection with new appointments and negotiations. The University of Münster considers the innovation fund as an important financial support that helped to implement strategic goals, in particular in connection with new appointments and research foci.

Since 1996, higher education institutions in Nordrhein-Westfalen have been gradually conceded financial autonomy which included flexibility of the staff budget, almost comprehensive mutual coverage of budget items and the building up of reserves. Since January 2006, all higher education institutions have a global budget. Fund allocation according to performance based parameters has been practised since 1994. At first, only the funds for teaching and research were included (9.5 % of the budget). Meanwhile the proportion has gone up to 20 % of the total budget.

### **2.3 Intended and Unintended Effects of the Funding System on Higher Education and on the Core Tasks of Teaching and Research: Planning Security, Correlation between Budgeting and Target Agreements**

In **Baden-Württemberg**, the Ministry of Sciences, Research and the Arts regards target agreements as an important pillar for the political governance of the universities. Via target agreements, well-defined objectives of higher education development should be achieved. Target agreements can support the development of university profiles and centres of teaching and research. A couple of target agreements have been concluded so far between the Land and the universities.

In **Bayern**, the State Ministry of Sciences, Research and the Arts attaches great importance to target agreements too, and regards them as an adequate instrument to lead in innovative and enduring processes of development. Target agreements are supposed to concretise and implement the strategic objectives stated in the Optimising Concept and, furthermore, are meant to define the relevant parameters for a monitoring process. They are to supplement the parameter based allocation of funds and funding by additional allowances, and will thus

enable a more target oriented financing. In addition, the commitment of the universities to deliver 600 posts into the Innovation Fund will enhance the universities' motivation to abandon sub-critical fields and to concentrate on innovative profiles and areas.

As the Ministry strives for high flexibility within the arrangement of the university budgets, universities will have the option for more flexibility within the traditional governmental accounting, a global budget or business accounting. Moreover, extra funding provided by the Innovation Pact and the disposition of income earned by the universities (including tuition fees) enlarges their scope of action.

The **University of Munich** appreciates the way that Bayern enlarges the scope of action of the universities and links financing via target agreements on verifiable performance parameters, as well as planning security for the time of an election period. In general, positive effects regarding the willingness to bring about changes can be realised.

In **Berlin**, the effects of the finance and governance system have to be appraised against the background of the restrictive budget situation. In the view of the universities and the Senate Administration of Science, Research and Culture (the Ministry of Science), the model of "distant governance" (arms length governance) is considered positive because budget cuts were unavoidable. The granting of a maximum of autonomy is considered as being helpful to activate the powers within the universities.

The finance system for the universities in Berlin has the effect that the grant for the institutions in the western part of the city is declining in favour of the expansion of the institutions in the eastern part. Over the period 1993 to 2009, the grant will be decreasing by 15 % (the actual cuts are higher because of the escalating costs of pensions and allowances for health insurance). The declining state grant also caused a reduction of study places, so that the task of student training which was previously considered important (more than half of the students were from other Länder or from abroad) is not supported as before.

In **Nordrhein-Westfalen**, agreements on targets and performances will be a main instrument for governance. In past years, a scheme of key data has been developed across all higher education institutions and subjects to provide information on performance and workload. The universities make use of these data for internal discussions and funding decisions. Beyond this, the ministry intends to develop a monitoring system.

Over the years 2001 to 2004, the Land concluded target agreements with the higher education institutions that placed emphasis on academic reforms, and that were funded with extra money. The first comprehensive target agreements were concluded for the years 2002 to 2004 and for the years 2005 and 2006. From the point of view of the Land, the first target agreements remained in the area of general positions and did not consider arrangements for

the case of failure. Therefore, the Land stresses the importance of a close connection between budgeting and target agreements. Targets and performance have to be reflected in funding mechanisms to give them a binding character.

From the point of view of the **University of Münster**, the first target agreements with the Land included too many single goals that did not reflect an overall strategy of the university. All in all, only a minor effect was found. Indeed, the university expects that it can make better use of target agreements subject to the condition of a global budget, and can better develop profiles. One delicate aspect as regards the global budget is that the land withdraws from setting priorities, e.g. on behalf of higher education investments, which are, in view of the tense financial situation, difficult to decide on.

## **2.4 Influence of the Funding System on Institutional Strategies**

From the point of view of the **University of Heidelberg (Baden-Württemberg)**, there is a close connection between the finance and governance system of the Land and the institutional strategies of the university. The University of Heidelberg holds a global budget since 1999 and has had good experiences with it. Like other large and traditional universities in Baden-Württemberg it has lost state funds by the state-wide fund allocation model. The cuts were evenly passed on to the faculties. The internal fund allocation model of the University of Heidelberg is based on parameters and includes a part that is allocated to the faculties via negotiations. By these budget negotiations the university will go a step further than the funding system of the Land. The University of Heidelberg has defined its strategic goals and strives to attain those goals by their internal funding and management system. Target agreements are already widely used, and the experiences with this instrument are positive.

By means of the Innovation Pact, the **University of Munich (Bayern)** attempts to re-allocate posts, and thus to gain more flexibility within the staff budget. The university has developed a plan to shift about 200 posts in research foci that were reviewed as excellent and to close about 20 courses of study at the same time.

The strategic goals the University of Munich has defined in its mission statement are directed at the model of a research university, at the priority of basic research and at research based teaching. It has committed itself to the idea of excellence. The university regards target agreements as a suitable management instrument to attain their strategic goals on the way to a research university. More reliability and trust between state and universities is anticipated by the use of target agreements. Indeed, from the point of view of the University of Munich, a decisive factor within this process will be whether the characteristic feature of the individual universities will be taken into account. It is argued that excellence of research should be given priority over a well-balanced state-wide cluster of subjects.

The University of Munich has established a model for its in-house allocation of funds that separates needs and performances. Henceforth, target agreements with clearly defined performance parameters will also be adopted. The university points out that the appointment policy plays an important role as an instrument of internal governance and management, because funds, posts and space are allocated over it to a considerable extent. Therefore it is important to link these appropriations of funds to results that can be verified.

The **Free University of Berlin** has had a global budget since 1949 (due to Allied Legislation). It was the first German university that concluded target agreements and has now about six years of experience with this instrument. It has been developed further and has proved itself as very successful. The strategic goal of the Free University of Berlin is to remain an internationally recognised research university which is able to identify new fields of research and to work on them at international level. The university attempts to achieve this goal in as many disciplines as possible, but because of the declining budget it can only be attained in selected areas which are decisive for its profile.

Despite of the shrinking budget, the Free University of Berlin managed to establish new research foci because of an increasing number of retirements of professors that was made use of for an active appointment policy taking into consideration long-term strategies. From the point of view of the Free University of Berlin, the effects of the finance and governance system on the performance in the fields of research, third party funds and teaching result from the fact that the fund allocation model in Berlin caused a competitive situation between the universities. In the face of declining budgets, the Free University of Berlin had to concentrate its resources.

From the point of view of the **Senate Administration of Science, Research and Culture Berlin**, the performance oriented fund allocation has initiated an increasing awareness of efforts and results. The efficiency reports for the Senate Administration and the Parliament show that they are especially successful in the field of research. In the field of teaching, improvements are required to increase the number of graduates in the standard period of study.

As the **University of Münster (Nordrhein-Westfalen)** sees it, the competitive orientation of the university and the emphasis on performance measures is supported by the higher education policy of the Land. The university has its own in-house model for the allocation of funds that puts more weight on performance than on workload (70 % to 30 %). The university will also benefit from the fact that the shifting for profit and loss of the state-wide fund allocation model has been raised from 1 % up to 2 %.

## 2.5 Stakeholders' Views Concerning Strengths and Weaknesses of the Funding System

The assessment of strengths and weaknesses of the finance systems considerably depends on the role and the view of the stakeholders within the system. Therefore, this chapter reflects the view of the individual stakeholders.

From the point of view of the **Ministry of Sciences, Research and the Arts Baden-Württemberg**, the Land is in the good situation that it had started to change to the new paradigm of state governance already some years ago. The ministry will consequently proceed this way. At present, Baden-Württemberg is in a state of changeover. The old instruments do not work as before and the new ones are currently being implemented or tested.

The **University of Heidelberg (Baden-Württemberg)** sees a correlation between the model of financial governance of the Land and the instruments used by the university. It has made positive experiences with global budgets, with the definition of strategic goals, and the use of target agreements between university management and faculties.

The **Ministry of Sciences, Research and the Arts Bayern** states that the Free State already has an outstanding and efficient higher education system. The cooperation between the state and the universities in the process of reform will facilitate an effective use of funds and enhance the competitiveness of the Bavarian universities. However, the state must not replace centralised governmental management by detailed input requirements when implementing the new instruments (e.g. target agreements). More responsibility for the universities has to be associated with less exertion of influence by the state. Financial controlling and monitoring will be carried out in future by target oriented funding, and cost and activity accounting will render more transparency about cost effectiveness. For the universities, more autonomy means more responsibility, but they have to make use of their new scope of development.

From the point of view of the Bavarian **Parliament**, the higher education reform is to sustain the international competitiveness of the Bavarian universities against the background of shrinking budgets and growing student numbers. Indeed, it is stated that the scope of action for the universities and for the State Ministry of Sciences, Research and the Arts increases, while the scope of action for the Parliament decreases by the time it withdraws from detailed governmental management. Nonetheless, the constitutional demand for the maintenance of higher education institutions implies that strategic and planning competences remain with the state. Hence, universities will be requested to give an annual report on the attainment of the stipulated goals and the use of their resources.

From the point of view of the **University of München**, there are three main conflicts of objectives which should be pointed out: There is a conflict between the demand to attract the best researchers in international competition and the concept for a state-wide cluster of subjects and disciplines with complete utilisation of capacities. Second, the aim to base admission to higher education on the appraisal of aptitude by the universities is in contrast with the imperative to increase the number of students. Third, the aim to create more scope of development for research is contradictory to the increase of teaching loads that are already considerably higher in comparison with international practice. It is important to specify these conflicts of objectives because they have effects on strategic decisions and on the use of instruments of governance.

According to the **Senate Administration for Sciences, Research and Culture Berlin** (the Ministry), the following strengths of the Berlin finance system can be stated:

- The higher education contracts protect the funding against cuts.
- Financial planning security for several years means that the higher education budgets do not have to be debated and affirmed every year in budgetary proceedings. Therefore they gain more stability and independence from external influences (e.g. elections).
- The negotiations on the higher education contracts ensure that the contracting partners are being actively involved. Both parties assume responsibility for the implementation of the targets they agreed on.
- The internal implementation of the targets is carried out by the higher education institutions themselves.
- The higher education institutions start negotiating from a safe financial position. This is seen as an important condition for negotiations between equal partners. The negotiations take about a year and are a dynamic process of finding goals.

Weaknesses are:

- The experiences made in Berlin demonstrate that broadening of autonomy brings about more uncertainty in the phase of change for all parties involved.
- The Senate has lost its right to execute spending cuts. This is partly regarded as weakening of its negotiation position.

The **Free University Berlin** states that the experiences made with the new form of 'distant state governance' via higher education contracts (which can be regarded as target agreements) are throughout positive because budget cuts were unavoidable in view of the financial situation in Berlin. In the face of decreasing finances, the university had to concentrate funding on selected areas with high potential. For internal management purposes, the Free University Berlin has used a performance-based fund allocation model and target agreements

between university board and faculties for many years. The binding character of the target agreements is high. They have enlarged the scope of action for the university management to a great extent. All together, the positive effects on increased performance in the fields of research, third-party funds and teaching are traced back to the fact that the fund allocation model in the state Berlin is a competitive model, as well as it is the internal fund allocation model of the Free University Berlin. In the past there used to be the same level of funds for equivalent subjects. Now the funds are depending on the performance of each individual professor. The acceptance of the performance-related thinking is facilitated by a high age-related turnover of academics. Nonetheless, developments beside the mainstream should also be accepted and fostered beyond the universities' well-defined strategic targets.

The **Ministry of Innovation, Sciences, Research and Technology Nordrhein-Westfalen** perceives a problem in the imprudent use of new governing instruments based on the concept of New Public Management. It is necessary to know in advance what can be achieved by using them in order to avoid contradictions. Central governmental management by directives can be essential and efficient in organisations, but it has disadvantages if there are long chains of leadership, for example from the parliament via the ministry into the universities. On the other hand, the advantage of target agreements is that they are based on consensus. Indeed, target agreements are not always efficient, the effort of coordination can be high, and objectives have to be formulated precisely, even including the case of failure. One fundamental feature of New Public Management is competition. The Ministry highlights the importance of competition between universities, especially in relation to fund allocation. But consequently, there have to be losers.

From the point of view of the **University of Münster**, the first target agreements that were concluded with the Land did not have great effects. On the other hand, the innovation fund supported strategic decisions of the university in respect of new research foci and appointments.

The **Parliament** in Nordrhein-Westfalen approves the way that the state withdraws from centralised governmental management and agrees with the fact that the universities are following their own ways. The parliament retains the duty to provide a legislative framework. But, as the universities are funded by public resources, the state is also responsible that finances are being used in an economical way and that universities assume responsibility for this.

## 2.6 Other Results

For several years, two general trends of the German finance system could be observed which are described by the University of München: On the one hand, the German higher education system suffers from under-financing which becomes apparent by comparing large

research oriented universities in Germany with European top universities. Moreover, the German universities have higher numbers of students and worse student-staff-ratios. On the other hand, the proportion of basic funding that can be used without restrictions is decreasing while the proportion of programme-linked earmarked funding is increasing. This effect contributes to split up the universities' foundation of finances and can affect the strategic aim of a research university to promote outstanding research by concentration on research and not by short-term pressure to acquire funds.

Baden-Württemberg, Bayern and Nordrhein-Westfalen will open up an additional financial source for the universities by introducing tuition fees up to 500 Euros per semester in 2007. Tuition fees are designed to improve student support and the range of courses offered. In the long run, ministries and universities hope to achieve more motivation of students. However, universities have to meet the challenges that are associated with the introduction of tuition fees. Apart from setting up an appropriate management they have to make provisions that grants for student scholarships and loans will be provided, and there have to be rules for exemptions.

In the course of change from an input-oriented to an output-oriented concept of governance, the ministries of sciences increasingly take over strategic tasks in respect of the general framework and objectives of higher education, contractual agreements between state and universities, and counselling and support of the institutions. Additional duties result from the implementation of reporting systems.

### 3 Conclusions

In all four Länder included in the study, **higher education pacts** or contracts have been concluded between governments and universities. They grant **planning security** for the time of an election period, whereas, in return, the universities committed themselves to financial cuts to a greater or lesser extent; in some Länder, these funds are being reinvested into the higher education sector for strategic purposes. The planning security is appreciated highly by the universities in times of declining public budgets. By globalising the university budgets and making them more flexible, the Länder delegate responsibility in financial matters to the institutions. In addition, a large number of competences on behalf of staff, appointments, examinations and internal management are assigned to the universities.

All Länder have some years of experience with models of **performance and capacity-related allocation of funds**. Universities also use parameter models for their internal fund allocation. In particular the appointment policy of the universities is considered as an important instrument to manage resources because it fixes financial decisions from strategic aspects on a long term. Furthermore, **target agreements** are used as instruments of governance between Land and universities. Some universities already have positive experiences with target agreements between university board and faculties. Because more financial autonomy and planning security results in high requirements for responsibility and transparency, the universities implement cost and activity accounting. In addition, standardised **reporting systems** are being developed.

Ministries and state parliaments **withdraw from many areas of centralised financial governance and management** in order to obtain better results in higher education policy. The shift from an input-oriented model of detailed governmental management to an output-oriented model is characterised by the use of target oriented funding based on performance parameters and the introduction of instruments of business administration such as cost and activity accounting and target agreements. The parliaments have approved the way the state withdraws from centralised governmental management, although the loss of strategic competences is criticised because the state remains the main source of finance of the higher education institutions. The universities appreciate the new form of “distant governance” (arms length governance) and make better use of their financial resources by implementing new models of internal fund allocation and target agreements. However, large research oriented universities are confronted with the conflict to compete successfully in an international context and the claim of the state as the main financier to provide a state-wide cluster of subjects and disciplines.

## 4 General Design and Study Goals

### 4.1 Study Context

This national study for Germany carried out by the Bavarian State Institute for Higher Education Research and Planning is part of an international comparative study on funding systems and their effects on higher education systems which is conducted by twelve states<sup>7</sup> within the OECD Programme on Institutional Management in Higher Education (IMHE). Main objectives of the international study are the description and the comparison of finance systems in selected states and the analysis of specific effects on higher education from the point of view of different stakeholders. Thus, a basis for mutual learning and further development will be achieved. The specific benefit of the German study is to provide a survey of the different finance and governance systems in individual Länder and to exchange experiences.

In Germany, the **higher education system** is a matter that the **Länder are responsible for autonomously**. The higher education systems of the Länder share some general features, but their finance and governance systems, their policy and their financial situation are quite often different. As there is a strong interaction between the funding and the governance system in higher education as they are almost entirely state-ruled and state financed, the German study refers to funding *and* governance systems.

As per March 2006, Germany had a total of 1.9 million students and **334 state and state-approved higher education institutions** which are of **different profiles**: 117 universities, 159 Fachhochschulen (universities of applied sciences), and 58 colleges of art and music.<sup>8</sup> Solely universities and equivalent institutions of higher education have the right to award the doctorate (Promotion) and a post-doctoral qualification to teach in higher education (Habilitation). Research (particularly basic research) and the promotion of junior academics are also distinctive features of universities.

### 4.2 Key Areas

The German study describes the funding and governance structures in **four Länder** within the Federal Republic of Germany with different political and financial conditions: the territorial states **Baden-Württemberg**, **Bayern** and **Nordrhein-Westfalen** and the city state **Berlin**. Out of those Länder four traditional, research oriented universities with high student numbers were chosen as reference points: The **University of München** (Bayern), the **University of**

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<sup>7</sup> Austria, Belgium, Brazil, Czech Republic, Denmark, Germany, Ireland, Italy, Latvia, Norway, Portugal, Slovak Republic

<sup>8</sup> Figures according to Hochschulrektorenkonferenz, [www.hochschulkompass.de](http://www.hochschulkompass.de)

**Heidelberg** (Baden-Württemberg), the **University of Münster** (Nordrhein-Westfalen) and the **Free University Berlin**. All these universities are among the ten major universities in Germany. Therefore they can give a broad view on the issues of the study. The following table gives some relevant key figures:

*Higher education financial indicators for individual universities 2002  
(without medical institutions, in 1000 Euros or number)*

Univer- sity	Land	expendi- ture for staff	remaining current expendi- ture	income from ad- ministration and ser- vices	third- party funds	current basic funds	stu- dents	gradua- tes	Profes- sors
<b>Heidel- berg</b>	Baden-Wür- temberg	145 669	50 570	8 679	45 476	142 084	18 901	1 550	320
<b>Münche- n</b>	Bayern	220 924	73 543	9 337	52 030	233 100	38 769	3 775	584
<b>Berlin</b>	Berlin	212 313	81 526	12 336	51 905	229 598	38 110	2 970	506
<b>Münster</b>	Nordrhein- Westfalen	175 342	76 803	1 251	36 227	214 667	39 595	3 424	432

Source: Statistische Ämter des Bundes und der Länder (Ed.): Fachserie 11, Reihe 4.3.2 – Einzelne Hochschulen

### 4.3 Key Questions

The subject matter and the objectives of the German Study derive from the objectives of the international study and are specified for the individual groups of stakeholders:

- Main features of the funding system of higher education,
- Formal, explicitly stated interrelationships between the funding system and national higher education policies,
- Intended and unintended effects of the funding system on higher education and on the core tasks teaching and research,
- Influence of the funding system on institutional strategies,
- Stakeholders views concerning strengths and weaknesses of the funding system,
- Other results.

In addition, the stakeholders were asked about effects they expect in the long run and about their view on the future roles of the Ministries for Sciences and Research and the Parliament.

#### 4.4 Study Methods

Because the German Study should represent as well the federal system and the different views of stakeholders, it concentrates for each of the **four Länder** on **three decision-making levels**: Parliament, Ministry of Sciences and Research, and universities. In order to enable a direct discussion of the experience of the individual Länder, the Bavarian State Institute for Higher Education Research and Planning organised a conference where the individual decision makers gave a talk based on the key questions of the study. Due to the fact that the study comprehends four Länder and four big universities, it concentrates on three main groups of decision-makers and stakeholders:

- the four **universities**, represented by their chancellors,
- the **ministries of sciences and research** in the individual Länder, represented by the heads of the university departments,
- the **parliaments**, represented by the chairmen of the higher education commission.

The talks provided very useful information on the individual higher education systems from the point of view of the decision-makers and resulted in a fruitful exchange of information and discussions. For the purpose of this study, the speakers were asked to hand in written reports at the same time; the information provided by these documents was made use of by qualitative content analysis. Because not all decision-makers could give a presentation, two of them were asked by telephone interview. Two members of parliament did not respond to the request.

As the results of the conference achieved widespread interest, the reports given by the individual stakeholders are published in the journal "Beiträge zur Hochschulforschung", edition 1/2006. In addition, a summary was completed with relevant information for the German reader.

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