Center for
Higher Education
Policy Studies

Higher education in Austria

Country report

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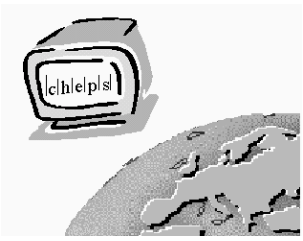

CHEPS - higher education monitor

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1 INTRODUCTION

The CHEPS Higher Education Monitor
The CHEPS Higher Education Monitor is an ongoing research project, commissioned by the Dutch Ministry of Education, Culture and Science. The project aims at providing higher education policy makers with relevant and up-to-date information on national higher education systems and changes in policies regarding these systems. This information is presented in in-depth country reports, comparative thematic reports, comparative trend-reports and a statistical data-base. The core countries for which this information is collected and presented are Australia, Austria, Denmark, Finland, Flanders, France, Germany, the Netherlands, Portugal, Sweden and the United Kingdom.

Country reports
Increasingly, governments take international trends into account when developing national higher education policies. Continuing European integration, the increasing mobility of people within the European Union, as well as the supra-national initiatives deployed at the European level with respect to higher education (e.g. the Bologna and the Lisbon process) necessitate such an orientation. Policy makers therefore need to have access to adequate information with respect to structure, trends and issues in higher education in other European countries as well as other relevant countries. New technologies have opened access for everyone to vast amounts of facts and figures on higher education in almost every country. Although these data are indispensable for higher education policy makers and analysts, they do not provide information that policy makers may use as such. What is lacking is a frame of reference that may be used to interpret the data.

Such a framework is offered by the CHEPS Higher Education Monitor country reports. These reports have a clear structure, describing the higher education infrastructure and the research infrastructure. In addition to an in-depth description of the institutional fabric of the higher education system, the reports address issues regarding finance, governance and quality in higher education. The country reports provide the frame of reference for the interpretation of policy initiatives, trend-analyses and cross-country comparisons.

International databases, such as those set up by the EC (for example the Eurydice database), OECD, and UNESCO are important sources of information. The data from these sources are extended, updated and refined by using national statistics, (inter)national journals and magazines, national policy documents, and research papers.

The country reports will be updated every three years. Information on important recent developments can be found in the annual update reports.

2 EDUCATIONAL INFRASTRUCTURE

2.1 Introduction

This chapter will focus on the educational infrastructure in Austria. An overview will be given of pre-school, primary and secondary education and then, the higher education infrastructure will be discussed in more detail. In Austria, primary education is provided for pupils until the age of ten, lower secondary for pupils aged ten to fourteen and upper secondary for pupils aged fourteen to (a maximum of) eighteen.

2.2 Pre-school

Nursery school or *Kindergarten* is the traditional form of pre-school education for children aged three to six. Officially it is not a part of the education system. Participation in *Kindergarten* is optional and is dependent on the parent's initiative. About 75% of all *Kindergartens* are public, usually run by local communities. The other quarter is run by private providers. In the year 1999/2000 there were 4,773 *Kindergartens* in Austria. In 1999, 36% of all three-year-olds, 75% of all four-year-olds and 91% of all five-year-olds attended pre-compulsory education (Eurydice, 2001).

2.3 Primary education

The legal bases of primary education are found in the *Schulorganisationsgesetz* (School Organisation Act) and in the *Schulunterrichtsgesetz* (School Education Act). The implementation of this legislation is divided between the federal state, the *Länder*, and local authorities. The *Länder* are responsible for administration and management of schools while the federal state is responsible for the foundation of schools, for class sizes, school hours, etc. General compulsory education extends to all children that have their permanent residence in Austria. Children attend primary education for four years in the *Grundschule* or Volksschule. After this, they proceed towards secondary education, either vocational education (*Hauptschule*) or general education (*Allgemeinbildende Hohere Schule*).

Primary education covers grade one to four from the *Grundschulen* or *Volksschulen*. The function of these four years is to provide elementary education to all children. In grades three and four, one foreign language is taught, which is compulsory but not graded. As from 2003/2004, schools can teach a foreign language starting from grade 1. Teachers in grade 1-4 of the *Grundschule* spend four years with the same class. The curricula of the *Grundschulen* or *Volksschule* only provide a framework that can be shaped further by the teachers. This enables the schools to adapt it to individuals or to local conditions. During the fourth year parents are informed about the educational career options in secondary education for the pupils.

Children with special educational needs are taught in *Sonderschulen* (special school) which are run parallel to the *Volksschule*. The difference between Sonderschulen and *Volksschulen* on the one hand and *Grundschulen* on the other is the fact that the former schools also provide education after the primary level. Grades five through eight from the *Volksschulen* is however run in only 15 locations today (Eurydice, 2002).

2.4 Secondary education

After four years of primary education, pupils and their parents can choose between three forms of lower secondary education (age 10-14):

- Academic secondary school (*Algemeinbildende Höhere Schule*; AHS)
- General secondary school (*Hauptschule*; HS) followed by vocational training
- Upper level of the *Volksschule* (negligible in terms of student numbers)

The participation in the upper level (age 10-14) of the *Volksschule* nowadays is negligible. About 70% of the pupils choose for the *Hauptschule*, while 30% enters into the AHS.
The upper secondary education system (age 14+) is divided into three parts. Students that want to continue full-time education enter either four years of general education in the AHS or they proceed with vocational education, either in the *Berufsbildende Mittlere Schulen* (BMS: four years) or the *Berufsbildende Höhere Schulen* (BHS: five years). Students completing AHS or BHS receive a '*Matura'* qualification and are entitled to enter the Higher Education Sector. These different institutions of lower- and upper-secondary education will be explained below.

2.4.1 AHS: Algemein Bildende Höhere Schulen [age 10-18]

This type of education comprises a four-year lower cycle (*Unterstufe*) and a four year upper cycle (*Oberstufe*). The final examination after eight years gives students access to Universities and *Fachhochschulen*. The prerequisite for admission is the successful completion of the fourth grade of primary school plus an assessment of "Very good" or "Good" in the subjects German, Reading and Mathematics. Transition from the lower secondary to the upper secondary is based on continuous assessment of the student's work. In the upper level, several subtypes can be distinguished. These subtypes do not differ in level but in the compulsory subjects that have to be offered:

- *Gymnasium*: Latin and another classic or modern language
- *Realgymnasium*: next to Latin or one modern language, the focus is on mathematics, physics, chemistry or environmental- and life sciences.
- *Wirtschaftkundliches Realgymnasium:* besides Latin or a modern language, the curriculum is focused on social sciences and humanities.
- *Oberstufenrealgymnasium*: this form of school is open for all pupils having successfully completed grade 8 (age 14) of a AHS, as well as for graduates of a *Hauptschule*. Students can choose between three different orientations.

If students complete the final exam of the AHS (called *Reifeprüfung*), they will receive the *Matura*.

2.4.2 HS: Hauptschulen [age 10-14]

After successfully completing grade four of primary education, pupils can go to the HS. After an observation period (3 weeks to 1 semester), pupils are subdivided into three groups according to their level. In the subsequent years there are several fixed points for streaming either upward or downward. The educational objective of the HS is preparing pupils for a transition to medium and higher level secondary education on the one hand and to give them opportunities for acquiring practical skills on the other. Both requirements are being met by offering an extensive offer of compulsory and optional subjects and voluntary exercises.

2.4.3 Vocational secondary education

Pre-vocational schools: *Polytechnische Lehrgang*

This stream is attended by pupils leaving the *Hauptschulen*, as their 9th year of schooling. Pupils in this stream intend to continue with vocational training in a dual system, immediately after leaving the *Polytechnische Lehrgang.*

Vocational Schools: BP, BMS, BHS
After eight years of schooling, pupils that do not want to continue with the general education track can choose between two main categories of vocational education:

- *Berufsbildende Pflichtschulen* (part-time)
- *Berufsbildende Mittlere Schulen* or *Berufsbildende Höhere Schulen* (Full-time)

2.4.3.1 Berufsbildende Pflichtschulen

The training in the part-time vocational schools is based on a dual system of schooling at a *Berufsschule* and an apprenticeship. Completion of the nine years of compulsory schooling is mandatory for the start of an apprenticeship (apprenticeship training contract).The apprenticeship is based on a contract between a company and the apprentice. For all apprentices, attending a *Berufsschule* is compulsory. Training at the *Berufsschule* lasts for the entire apprenticeship period. In this stream, there are three different types. There are all-year schools with 1 to 1.5 days of instruction per week. And there are course-type schools with either 8-week courses covering 45 hours a week or 10-15 week courses covering 42 hours a week.

Berufsschulen offer complementary instruction in the theoretical and practical sides of the chosen profession (currently in over 200 different branches) and in general education. Their apprenticeship renumeration is arranged by a collective tariff arrangement (ca. 25 to 40% of the tariff of a skilled worker).

2.4.3.2 Berufsbildende Mittlere Schulen

Intermediate secondary technical and vocational colleges provide not only a thorough general education but also practical vocational training for specific occupations. They are full-time schools (except for the colleges for working adults). Pupils are generally accepted after successful completion of the 8th year (i.e. at the age of 14) and after passing an aptitude test. Depending on the sector they cover, these schools have courses lasting from one to four years. Courses focus on practical training in school workshops, laboratories and practical rooms. Pupils must take part in compulsory practical training in companies or enterprises during their summer holidays (the number and duration of these training periods is laid down in the curriculum; in the commercial and trade schools summer work placements are voluntary). The most important sectors of BMS are:

- *Technisch gewerbliche Fachschulen* (industrial and craft)
- *Handelsschulen* (commerce and trade)
- *Fachschulen für wirtschaftliche Berufen* (domestic and commercial occupations)
- *Fachschulen für Tourismus* (Tourism)
- *Fachschulen für Sozialberufen* (social occupations)

2.4.3.3 Berufsbildende Höhere Schulen

To be admitted to a higher secondary technical and vocational college pupils must have successfully completed the 8th grade of the AHS or HS (with an entrance test of HS students with lower achievements). Higher secondary technical and vocational colleges provide general and vocational education and lead both to the exercise of an occupation and to admission to university (matriculation examination). Education is full-time and lasts 5 years (grades 9-13).

The curriculum is divided into three equal parts: general education, vocational theory and vocational practice (in school workshops, laboratories, kitchens and other practical rooms). Pupils at higher secondary technical and vocational schools must take part in compulsory practical training in business and industry during the summer holidays (the number and duration of these training periods is laid down in the curriculum; in commercial schools practical training periods are voluntary). Pupils successfully completing higher secondary technical and vocational colleges are entitled to practise their own trade after three years of professional experience. They may also have access to the regulated trades. After these three years of professional experience in their field, those who have completed higher secondary technical colleges and higher secondary colleges of agriculture and forestry may be called "Ingenieur". The most important higher secondary technical and vocational colleges are:

- higher secondary technical college (branches: mechanical engineering, electrical engineering, electronic engineering, electronic data processing and organization, civil engineering and construction, chemistry, textile engineering, business engineering, etc.);
- higher secondary college for fashion and garment technology;
- higher secondary college for tourism;
- higher secondary college for commerce (*Handelsakademie*);
- higher secondary college for industry and trade;
- higher secondary college for agriculture and forestry (branches: agriculture, horticulture, viticulture, fruit farming, forestry, dairy farming, etc.).

The number of schools and number of students of the various primary and secondary schools in Austria are given in table 1.

Table 1: Number of schools and students in primary and secondary education (2001/2002)

	Number of schools	Number of students
Volksschulen/Grundschulen (age 6-10)	3.360	387.408
Hauptschulen (age 10-14)	1.170	265.781
Sonderschulen (age 6-15)	402	13.337
Polytechnische Schulen (14-15)	302	19.750
Allgemeinbildende höhere Schulen (age 10-18)	325	186.347
Berufsbildende Pflichtschulen* (age 15-16/17/18/19)	178	132.613
Berufsbildende mittlere Schulen (age 14-15/16/17/18)	444	49.410
Berufsbildende höhere Schulen (age 14-19)	284	126.495

Source: BMBWK (2002b)
*: 2000/2001 data

2.5 Further education

2.5.1 Adult education

The adult education programmes offered in Austria are accessible to everyone. For some courses or training programmes, a specialist background is required; some are reserved to specific target groups (migrants, unemployed persons, unskilled young persons, women, etc.) To be admitted to a school for working adults, applicants must have completed the eighth grade of school successfully, be over 17 years of age, and have completed their initial vocational training/education or have already taken up working life. Most institutions are run as evening classes, to allow participants to combine work and school.

Adult education in Austria consists of a wide variety of educational facilities with different objectives and educational programmes. This sector consists of numerous commercial providers as well as associations and facilities for public adult education. A selection of major types of providers is given below:

- Different types of AHS providing general education leading to the *Reifeprüfung*.
- Technical and vocational schools and colleges providing courses for adults
- Post-secondary and post-graduate courses provided by higher education institutions (see 2.7.4)
- Programmes offered by the *Arbeitsmarktservice* (Labour-market-service)
- Programmes offered by private(/commercial) providers, preparing students for the *Reifeprüfung* exam, offering language courses, management training courses, etc.

2.6 Other post-secondary education: Kollegs and Akademien

Kollegs and *Akademien* are part of the non-university post-secondary education sector. However, this stream of education officially is not part of the Austrian Higher Education System (Pechar, 1998) and is therefore addressed in this section. Colleges and Institutes of Education, the Colleges and Institutes of Religious Education, Colleges of Vocational Training as well as Colleges and Institutes of Agricultural and Forestry Education provide training and further education of teachers for compulsory schools and vocational schools. The Study Law for Colleges passed in 1999 provides for these institutions to be developed into academies for teaching professions before 2007.

Furthermore, the Colleges of Social Work (*Akademie für Sozialarbeit*) should be mentioned. There are plans to convert them into *Fachhochschule* programmes. Several applications for recognition of *Fachhochschule* programmes in the field of social work have been submitted to the *Fachhochschule* Council. The quality evaluation procedure is currently taking place. The earliest date for the programmes to be started is the winter term 2001/2002. The *Akademie für Sozialarbeit* builds on the education provided at a higher-level secondary school and covers six semesters. Students will be trained at post-secondary institutions leading to a diploma, which allows the practice of the regulated profession of a social worker (protected title '*Diplomsozialarbeiter /Diplomsozialarbeiterin*'). The public *Akademien für Sozialarbeit* are maintained by the federal government. Their official German name designation is "*Bundesakademie für Sozialarbeit*".

Finally, the non-university tertiary sector also includes Colleges for Medical Technicians for the training of qualified medical services (medical technical laboratory, physiotherapy, technical radiology, dietary and dietetics advisory, ergotherapy, speech therapy-phoniatrics-audiology, orthoptics) and Colleges of midwifery. The training courses at colleges take usually three years; at the Colleges of Social Work, the training offered to people in employment has a duration of four years. The duration of training courses in these fields was partly increased from two to three years at the end of the 80s.

Admission requirements to the *Akademie für Sozialarbeit* are the *Reifeprüfung* or *Reife- und Diplomprüfung* at a secondary school or college, or *Studienberechtigungsprüfung* or *Berufsreifeprüfung* and aptitude test. The headmaster of the *Akademie für Sozialarbeit* will decide on admissions. For *Kollegs*, a *Reifeprüfung* or *Reife- und Diplomprüfung* at a secondary school or college, or *Studienberechtigungsprüfung* or *Berufsreifeprüfung* is required. In order to be admitted to a paramedical college or a midwifery college, candidates must prove that they are mentally and physically fit to fulfill the duties of their profession, that they have never been convicted of criminal offences, that they have passed the *Reifeprüfung* or any equivalent school-leaving examination or are in possession of a nursing

diploma or a paramedical service diploma or the *Studienberechtigungsprüfung* as an entrance qualification for medical studies.

2.7 Higher education

2.7.1 Introduction

We will now turn to the higher education sector in Austria. In this sector there are three types of institutions: Universities, Colleges of Art and Music on the one hand and the *Fachhochschulen* on the other. The first two constitute Austria's traditional university sector. The latter forms the non-university higher education sector. Both sectors and all types of institutions will be discussed here.

2.7.2 The Fachhochschulen sector

The non-university tertiary education sector comprises the *Fachhochschulen*. This type of institutions is relatively new in the Austrian higher education system. The first programmes in this sector started in 1994.

2.7.2.1 Development of the Fachhochschulen sector

Universities traditionally have dominated post-secondary education in Austria which, unlike many other countries, did not develop a new branch of non-university tertiary institutions during the demographic and educational "boom years" in the 1960s and 1970s, but rather responded to the challenges of providing more education for more students by opening up and reforming its university system. A new phase in post-secondary education began in 1994-1995 in Austria with the introduction of ten *Fachhochschule* programmes. The introduction of this new type of tertiary education provided students with an alternative to studying at universities and was designed to expand the number of study programmes. The establishment of a *Fachhochschule* sector was based on federal legislation, the *Bundesgesetz über Fachhochschul-Studiengänge* – FHStG – which was approved by the Austrian Parliament in the fall of 1993.

The introduction of the *Fachhochschule* sector represents the abandonment of the "monopoly" the Austrian federal government used to have on higher education and is an unprecedented decentralisation measure. The *Fachhochschule* legislation itself consists of just twenty paragraphs and created a procedural framework for the establishment of these new institutions. Their operations will be overseen, accredited, and periodically reviewed by an independent agency of sixteen experts known as the *Fachhochschulrat*, appointed for three year terms by the Austrian Minister for Science and Research. The Austrian federal government has not assumed legal responsibility for establishing or funding *Fachhochschulen*, but it sees itself as a cata1yst and a financial partner in this process. For the time being, the federal government has decided not to fund capital investment and building costs either because they have been assumed by provincial or municipal governments or because the programmes have been established in existing or adapted facilities. However, federal educational authorities are interested in promoting mixed financing schemes and providing incentives for provinces, municipalities, private businesses, and industry to participate in them.

The federal government is not directly involved in the administration or the articulation of *Fachhochschule* programmes. Provinces, municipalities, professional chambers, and private organisations – or 'Joint Venture' combinations – may found and operate post-secondary educational institutions provided they meet the forma1 and qualitative criteria estab1ished by

the law. Individual actors and educational interest groups have an opportunity to establish post-secondary institutions tai1ored to meet specific regional or professional needs. The *Fachhochschule* study programmes differ from university programmes in several respects. *Fachhochschule* programmes are more concentrated and shorter (six to eight semesters) than university studies, and their aim is to transmit a high level of vocational technical education. The *Fachhochschulen* have been established to increase mobility within the Austrian educational system. *Fachhochschulen* award two types of degrees: the *Diplom-ingenieur* FH for technical subjects and the *Magister* FH for non-technical subjects. Although the *Fachhochschule* explicitly is designed to produce 'practitioners', provisions have been made for graduates of *Fachhochschulen* to enter into doctoral programmes at universities after the completion of additional university course work. The division of labour between *Fachhochschulen* and universities should reduce the enrolment pressures at universities and ultimately allow them to concentrate more on their objectives of research and scholarship.

The *Fachhochschule* policy was a more radical departure from Austrian traditions than university reform (Pratt & Hackl 1999). In particular, it aimed at:

- placing considerable power into the hands of a body (the *Fachhochschulrat*) and institutions (the providers of courses) that were not part of the central administration;
- breaking with the Austrian tradition of explicit legal regulation for all government initiatives; for universities (on the Humboldtian model), courses and curricula in universities are controlled by Parliament, with modifications usually requiring legislation. The *Fachhochschule* policy devolved powers to accredit courses to an academic, not a governmental, political or politically dominated body;
- increasing transparency in decision making, with clear contracts between the providing institutions, the controlling body and (for funding) the Ministry; in the university sector much communication is based on obscure bargaining between institutions and the Ministry; and
- offering the providers of *Fachhochschule* courses considerably more autonomy than the universities. Any legal entity (public or private) may seek to offer a *Fachhochschul* course. It is responsible for its own affairs and finance; universities, even after recent reforms, do not have such powers.

2.7.2.2 Access

Due to the limited number of study places in each *Fachhochschule*, individual institutions are pursuing selective admissions policies. For the programmes inaugurated in the fall of 1994-1995, the number of applicants was twice as high as the number of students admitted. Over 600 students enrolled in the various programmes. In the starting phase of the *Fachhochschule* sector, policy-makers established a target of 10,000 enrolments in *Fachhochschule* programmes for the academic year 1999/2000. With a substantial increase in the amount of programmes offered, this target was almost reached. Since 2000, the amount of programmes offered and the amount of students have increased substantially (Table 2). In the year 2005/2006, participation in the *Fachhochschulen* sector is targeted at over 25,000.

Table 2: Number of students and number of programmes in *Fachhochschulen* (1994-2001)

	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02
# students	695	1756	3753	5771	7880	9977	11766	14438
# programmes	10	20	33	39	46	55	67	93

Source: *Fachhochschulrat*, 2001

The requirements of admission to *Fachhochschule* study courses are the *Reifeprüfung*, the *Studienberechtigungspriifung* (University entrance examination) or any professional

qualification in the particular field. Depending on the objectives of a course of study, entrants with special professional training may have to pass a number of additional examinations, either prior to admission or by a deadline, in any case before the beginning of the second year of studies.

2.7.2.3 Participation

As noticed before, the targets for the *Fachhochschulen* for the year 1999/2000 were almost met. The participation in this sector has shown a rapid increase since its start in 1994. Since the start of this sector the participation of female students in *Fachhochschulen* has been an important topic. Due to the overrepresentation of engineering studies in this sector, male students still make up the majority of the *Fachhochschulen*. Although the underrepresentation of women was reduced from a quarter to a third of all students, this can partly be ascribed to the types of new *Fachhochschulen* programmes.

Table 3: Number of students in *Fachhochschulen* by subject of study (1997-2001)

	97/98	98/99	99/00	00/01	01/02
Engineering	3065	3948	4974	5943	7213
Business & Economy	2304	3339	4337	5085	6077
Tourism	402	408	396	467	621
Social studies & Humanities	0	185	270	271	527

Source: *Fachhochschulrat*, 2001

Table 4: Male and Female Participation in *Fachhochschulen* (1994-2001) in %

	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02
Male	75,3	78,1	75,1	72,8	72,1	71,0	69,3	66,8
Female	24,7	21,9	24,9	27,2	27,9	29,0	30,7	33,2

Source: *Fachhochschulrat*, 2001

2.7.2.4 Outflow of students

The first *Fachhochschule* students graduated in 1997. Until 2002, a total of 5083 individuals graduated within this sector.

Table 5: Graduates of *Fachhochschulen* by gender and by year (1996-2000)

	96/97	97/98	98/99	99/00	00/01
Male	90	326	699	1152	1443
Female	24	99	198	432	575
Total	114	425	897	1584	2018

Source: *Fachhochschulrat*, 2001

2.7.2.5 Education and Labour Market

Whether the *Fachhochschule* programme matches the demand, is not only of overriding importance at the time of accreditation, but also plays a major role in the long-term commitments of the sector. Therefore the accreditation of *Fachhochschule* programmes is restricted to a maximum of five years. This mechanism ensures flexible response to short and medium term changes in the educational demand from the labour market. Data on the entrance of *Fachhochschule* students into the labour market are not yet available.

2.7.2.6 Personnel

For the staff of the institutions, the *Fachhochschule* policy implies less individual freedom than for staff in universities. The Austrian tradition was one of high power at the top level – the state – and the bottom level – full professors –, but the *Fachhochschule* policy gives more autonomy to the institutions themselves. The enhancement of the vocational aspect of education is reflected in the regulation that half of the members of the *Fachhochschule* have to be practitioners (the other half are academics) and that the course development teams have to include practitioners. The development team is commissioned by the institution to design a degree programme. This development team must consist of at least 4 persons. Two of them must be qualified as university lecturers (Habilitation), and two must prove that they worked in a field relevant to the proposed FH programme. In case of approval at least two persons with the required academic qualifications and two persons with the required professional experience from the development team have to teach in the degree programme.

The autonomy of (the academic management of) *Fachhochschule* programmes in matters of teaching and research is legally guaranteed. Unlike universities, the personnel of the *Fachhochschule* sector are exclusively employed in various types of contracts under private law with the providers of the *Fachhochschule* programmes or the *Fachhochschule*. The teaching faculty consists of the full-time management of the study programme and full-time or part-time teachers. Teaching staff has, in addition to teaching, a responsibility for applied research and development work.

Employment contracts in the *Fachhochschulen* are for limited periods. This is a substantial contrast with the life-long contracts of the professors at universities (although in that sector, the situation was changed in 2002). In the *Fachhochschulen*, personnel are employed by the institutions and are 'normal' employees instead of civil servants.

2.7.3 The University sector

2.7.3.1 Structure

In Austrian higher education there are four general universities. The University of Vienna is the most comprehensive one, considering the range of study programmes offered. The other general universities are established in Graz, Innsbruck and Salzburg. The institutions in Linz and Klagenfurt offer a limited number of study programmes. The University of Klagenfurt for example is specialised in courses in humanities, while the University of Linz offers a large number of study programmes in business and sciences. In addition, there are universities offering only one or a group of related study programmes, as the agricultural university, the veterinary university, the economic university (all three in Vienna), the technical universities in Graz, respectively Vienna and the University of Leoben for geology.

In the field of teaching, the principle task of the university is to prepare students for their future professional careers, in the form of diploma and doctorate studies. Diploma studies lead to the academic title of a *Magister* or a *Diplom-Ingenieur*. The majority of study courses are of identical or similar structure. Diploma studies, which primarily serve as scientific, professional training, generally cover two cycles. Each cycle ends with a diploma examination (*Diplomprüfung*) covering a number of subjects for examination. Admission to the final *Diplomprüfung* is tied to the presentation of a research paper (*Diplomarbeit*). The law prescribes only a minimum time for the completion of studies, which is spelled out in the study regulations and can be shortened in exceptional cases only. The nominal duration differs by discipline. It is regulated by decree that the *Diplomstudien* in law, sociology and economics have a minimum duration of 8 semesters (4 years), in agriculture and pharmacy 9 semesters, in physical, technological, theological and psychological sciences 10 semesters,

while (veterinary) medicine at least takes 12 semesters. Students in Austria generally exceed this limit: only four percent of all graduates stay within the prescribed period.

Before 1997, the basis of curricular regulations is the General University Studies Act (*Allgemeines Hochschulstudiengesetz*), which came into effect in 1966. Regulations contained in this Act establish guidelines for enrolment, registration, curricular structure and organisation, types and details of examinations, as well as the conferring and legal protection of academic degrees. In addition to this fundamental Act, there are also special University Studies Acts applying to individual curricula or to groups of curricula. These Acts regulate matters as the naming of curricula, their subdivision into specialisations, curricular periods, the duration of studies, the subjects of examinations for the master's and doctor's degrees, and the wording of academic degrees and related titles.

Beyond these general and specific Acts of Parliament, there are the curricula established by the Federal Ministry of Science and Research. The Ministry prescribes which curricula are taught at a given university, what classes are compulsory or optional within a curriculum and the number of hours they are taught, and what subjects the examinations shall be comprised of. On the basis of these curricula, the Study Boards of individual universities decide their Study Plans. Because of the large number of rules concerning curricula, curricular change in Austrian universities is difficult. Any change involves a four stage process, including consideration of the academic programmes by the Parliament. The General University Studies Act of 1966 and the special Acts (*besondere Studiengesetze*) were replaced by the *Universitäts-Studiengesetz* (University Studies Act) in august 1997. The University Studies Act lays down the studies to be established at universities and obliges the Federal Minister to review and to newly establish the complete range of studies within a period of ten years. The study law also governs the procedural regulations, types of studies and admission to studies, a framework for student examinations and theses as well as academic degrees. It provides for two types of studies: degree programmes (degree programmes ending with a Diploma and since 1999 also Bachelor and Master programmes) and higher education courses (*Kurzstudien*; see below).

Universities of Arts and Music

The Universities of Art and Music offer a wide variety of programmes. After the reform in 1985 and 1986 there are 37 programmes in the field of visual and applied arts and 118 in music, dance and theatre. Some of these programmes are teacher training programmes. It is legally determined that Universities of Art and Music are not allowed to found more study programmes unless it is convincingly demonstrated that these programmes constitute a real innovation.

Art education is equivalent to university education; Universities of Art and Music are also allowed to conduct research. The Universities of Art and Music are established by the State. The establishment of these universities, their location and organisation are all regulated by national law. There are six Universities of Arts and Music, located in Vienna (3), Salzburg, Graz en Linz. The teaching staff mainly consists of civil servants subject to *Hochschullehrerdienstrecht*. The Universities of Arts and Music have certain characteristics that differentiate them from regular universities. These are for instance: entrance examination (*Aufnahmsprüfung*) for students, class structures and private education in art subjects. The structure of these programmes is equivalent to the universities. Most of them are *Diplomstudies* with a nominal study length between 4 and 8 years. Four percent of the total number of students studies at a University of Arts and Music. One third of these students come from abroad. The Universities of Arts and Music provide academic degrees and are entitled to grant teacher qualifications for art education.

Private universities

In 1999, foreign universities as well as private Austrian institutions were entitled by law to act as universities and to offer study programmes in Austria. The University Accreditation Act regulated the criteria for educational institutions and the procedure to be accredited as a private university. This is one of the prerequisites to be allowed to award degrees. Moreover, students at private universities have been incorporated into the system of study grants and transfer payments and into the Austrian National Union of Students. Public financial contributions are only available within the framework of particular governmental teaching and research schemes.
Early 2003, six private universities had a five-year accreditation. One private university had a three year accreditation, which was revoked by mid 2003 (Akkreditierungsrat, 2003)

The Danube University Krems
The Danube University Krems is a university for postgraduate education which was founded in 1994 and has a special position in the Austrian higher education landscape. It is a legal entity under public law and not part of the federal budget law. The Danube University is funded by the federal government and the provincial government of Lower Austria. It offers exclusively postgraduate further and continuing education. The university courses have to be carried out in accordance with the study law of state universities, but costs have to be financed by fees. The Danube University is under supervision of the Federal Minister in legal and financial matters.

2.7.3.2 Access and Participation

All students completing the (four year) AHS and the (five year) BHS gain the Matura qualification and are entitled to enter university (Pratt, 1993). The Matura is a passport to higher education for life: entry is guaranteed. It is also used as a passport to a career, but rising unemployment has restricted this route and has led to an increase in the proportion of *Maturanten* entering higher education.

In 2001, 86% of an age group completed the upper secondary level. About 41% of an age group also obtain the right of access to higher education through the Matura. This corresponds to an increase of 10 percent since the beginning of the 90s (BMBWK, 2002c). The increase is more notable for girls than for boys. About half of these certificates are obtained at academic secondary schools and half at higher vocational schools. The chances of entering the post-secondary and tertiary sector vary: over 80% of graduates of academic secondary schools, but only about 50% of graduates of higher vocational schools enter the university system. Around 2,5 % of new entrants have an alternative form of access to higher education (university qualification examination, vocational certificate, and supplementary entrance examination for a *Fachhochschule* programme). These alternative forms of access are more common for the *Fachhochschule* sector than at universities.

There used to be certain features of the Austrian education system that affect participation in higher education. First, the system is high1y segmented with a developed system of secondary technical and vocational schools and great importance attached to apprenticeship training. Furthermore, the non-university sector used to be small. Second, there is no numerus clausus for access. The Matura, the higher secondary school graduation certificate is the only condition for entering higher education. Thirdly, there was a high degree of detailed legal regulation ensuring extensive nation-wide uniformity and control. These features have caused a high pressure on the university sector of Austrian higher education. The establishment of the *Fachhochschulen* sector and the new regulations pushing higher education towards more autonomy and flexibility should relieve the university sector from these pressures.

Table 6: New entrants in the university sector (1995-2000)

	Universitäten	Universitäten der Künste
1995/96	24.106	858
1996/97	22.065	835
1997/98	20.976	725
1998/99	22.902	766
1999/00	24.915	861
2000/01	26.244	805
2001/02	22.310	802

BMBWK (2002): Statistisches Taschenbuch 2002

Table 7: Students in the university sector (1995-2000)

	Universitäten	Universitäten der Künste
1995/96	213.525	6.833
1996/97	213.510	6.835
1997/98	212.247	6.893
1998/99	214.912	7.297
1999/00	220.831	7.746
2000/01	221.532	7.707
2001/02	176.724	7.513

BMBWK (2002): Statistisches Taschenbuch 2002

The sharp decrease of new entrants and enrolments coincides with the introduction of tuition fees for undergraduate studies in the academic year 2001/02.

2.7.3.3 Outflow

Universities in Austria are not only confronted with the problem of long duration of study but also with high drop-out rates. The system is widely regarded as inefficient, despite a high student/staff ratio.

Table 8: Graduates in the university sector

	Universitäten	Universitäten der Künste
1989/90	9.493	758
1990/91	9.964	571
1991/92	10.195	557
1992/93	10.542	559
1993/94	11.226	611
1994/95	11.501	646
1995/96	11.908	640
1996/97	13.248	654
1997/98	13.224	630
1998/99	12.746	679
1999/2000	12.880	684
2000/01	14.118	711

BMBWK (2002): Statistisches Taschenbuch 2002

Table 9: Graduates by field of study

	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	2000/01
Theology	239	229	218	288	253	257	269	220	214	227	239
Law	1051	1106	1211	1257	1342	1413	1565	1626	1467	1760	1861
Econ/Social	1974	2015	2125	2380	2480	2513	2751	2866	2635	2938	2796

sciences											
Medicine	1419	1261	1106	1132	1112	1010	1102	1073	1259	1174	1410
Humanities	2132	2292	2368	2553	2543	2503	2863	2870	3023	2745	3276
Natural sciences	1195	1179	1134	1130	1166	1276	1416	1465	1442	1322	1484
Engineering	1397	1542	1599	1742	1851	2049	2414	2212	1895	2043	2222
Metallurgy and mining	103	103	114	143	125	124	151	151	206	153	164
Agriculture	324	320	405	412	379	436	412	471	358	425	440
Veterinary Medicine	141	122	134	148	196	213	219	193	142	219	148
Individual Programme	50	38	59	61	55	85	56	76	65	83	78

Source: BMBWK (2002): Statistisches Taschenbuch 2002

2.7.3.4 Education and Labour Market

Despite the expansion of the higher education sector in the last decades the proportion of persons with higher education qualifications (6 % of the 25 to 64 year old population) is traditionally one of the lowest in OECD countries (average 13%). The educational expansion does become noticeable in the younger age group: 10,4 % of the 30 to 34 year old persons have a university degree. One reason for the relatively low proportion of persons with higher education qualifications in Austria can be explained by the focus on higher vocational training in the upper secondary level of education. 71% have at least completed the upper secondary level II, against only 60% on average in OECD countries (BMBWK 2002c).

In 1994, the quota of graduates, with almost 90% of all graduates (94% of all female graduates and 85% of all male graduates), is highest in the service sector. About 1% finds a job in the primary sector and 11% in the secondary sector. The degree of concentration on the service sector has even increased in the course of time (as compared to 1971 about 80% in the tertiary sector and almost 20% in the secondary sector) in that it is the major employer for university graduates of all fields of study (BMBWK 2002c). Overall, the labour market has responded positively to the educational expansion and the increase of graduates of the tertiary educational sector. The percentage of unemployed university graduates is – with 2,4% in 2001 – only half of the unemployment levels of other qualification levels. However, university graduates are also impacted by the employment crisis. For instance, the first job after graduation has to be searched for more intensively and involuntary gap periods as well as lower initial salaries are to be expected. To support university graduates seeking employment, an increasing number of Placement and Career Services are being developed at universities. JobNet Austria is an initiative taken by universities to network their activities.

2.7.3.5 Personnel

In Austria, there is no special initial training for university lecturers. Initial training is acquired on the job. The prerequisite for appointment as *Universitätsassistent* (university assistant) or *Vertragsassistent* (assistant lecturer under private or public law) is graduation from a university (diploma studies). Neither the organisation law nor the service code specify any further training prerequisites. After four years of initial, limited-term service an assistant lecturer may enter provisional service. This presupposes his or her taking a pertinent doctor's degree and successful performance in teaching, the development of the arts, research, and the typical administrative tasks occurring at a university department. To obtain a permanent post, an assistant lecturer has to acquire the teaching authority of a *Universitätsdozent* (associate professor) after a further six years at the most or prove successful service in research, teaching and administration. For appointment as a *Universitätsprofessor* (university professor), candidates need a pertinent university degree, have to acquire the teaching authority of an

associate professor, or an equivalent scientific qualification domestically or internationally, as well as prove their educational skills. Professorship at arts universities may be granted without formal qualifications.

In 2000, the number of university professors at universities amounted to 1.854 according to post scheme, that of university assistants and contract assistants was 7.335 (habilitated associate professors account for around 35% of this figure) and that of miscellaneous academic personnel was 763. According to the post scheme, the universities of art and music account for 413 professors, 229 assistants and 611 permanent posts for miscellaneous academic personnel (BMBWK, 2002c).

The university staff is usually employed by the federal government: as civil servants under civil servant law or as contract employees under private law. The university organisation acts (for both universities and universities of art and music) created a new category of professor: the temporary contract professor who has a contract of employment under private law with the federal government and can be employed in special cases, e.g. as a substitute, as a part-time employee, in specific study law-related or subject-related situations and in case of a foundation professorship.

Other groups are also involved in teaching and research. Visiting professors are appointed for a maximum of two years and assume duties in teaching and research by agreement. In addition, external experts can be appointed to teach certain courses. Such adjunct faculty accounts for 21% of the university offer. The university institutions with restricted legal capacity can also employ staff with their income from contractual work (within the scope of research funding by private and public sources).

2.7.4 Postgraduate Education

2.7.4.1 Structure

The Austrian law governing university studies defines post-graduate studies as courses which may be taken up only by people holding an academic degree (*Magister*, Doctor of Medicine or any equivalent foreign degree). Post-graduate studies comprise doctoral programmes, special courses, MAS/MBAs and ‘university-like courses’.

Doctoral Programmes

Apart from studies of medicine, which lead directly to a doctor's degree, doctoral programmes may only be taken up after completion of degree programmes. Depending on the course of studies, doctoral programmes take two or four semesters and are completed by a dissertation and an oral exam in various subjects. Doktoratsst*u*dien in general require 4 supplementary semesters of thorough research. The students have to write a dissertation and pass the doctoral exam, the *Rigorosum*.

Special Courses

Special courses comprise Universitätslehrgänge and *Hochschullehrgänge*, which are provided on an independent basis by art colleges and universities. These courses which are career-related and financed by means of fees usually last two to four semesters. Taking into account the whole range of courses, the length of the courses varies between some weeks and ten semesters. *Universitätslehrgänge* which are organized on a post-graduate basis and which provide for at least 70 hours per semester may confer a Master's degree (Master of Advanced Studies, Master of Business Administration). Other *Universitätslehrgänge*, which provide for at least 40 hours per semester may confer the title "Academic…" (followed by a term referring to the relevant course).

University-like Courses
Upon authorization by the Federal Ministry of Education, non-university institutions of education which also provide for study programmes may for a stipulated period of time refer to these programmes as 'university-like courses'. The criteria upon which the university-like character of these courses is to be evaluated are laid down in the *Universitäts-Studiengesetz*. Prior to this authorization, universities offering courses in the same field and university committees have to be consulted. The right to confer the academic title *Magister* or the title "Academic…" is conditional upon the same prerequisites as required of *Universitätslehrgänge* and *Hochschullehrgänge*.

An important step towards the development of and meeting the demands for post-graduate education has been taken with the establishment of the Danube University Krems in 1994. In 2002, this university for postgraduate education offered 69 programmes in a wide variety of disciplines.

2.7.4.2

2.7.4.3 Access and participation

To start a Doktoratsstudium, a Magister or Diplom degree is required. Graduates from *Fachhochschulen* can also continue to the *Doktoratsstudium*. The amount of Doctoral students has nearly doubled in the last decade.

Table 10: Domestic Doctoral students 1990/1991 – 1998/1999

Year	90/91	95/96	96/97	97/98	98/99
Number of students	10.618	17.465	18.208	18.891	19.828

Source: Bundesministerium für Wissenschaft und Verkehr (1999).

In addition to its domestic doctoral students, Austrian Universities also attract a substantial amount of foreign students. In 1998/1999, this number was 3.401, or almost 15 % of the total amount of doctoral students. The number of domestic and foreign students for the various fields of study are given in table 10.

Table 11: Domestic and foreign students by field of study (1998/1999)

Field	Domestic	Foreign	Total
Theology	343	229	572
Law	3.719	222	3.941
Social sciences	3.486	456	3.942
Humanities & Sciences	7.561	1.511	9.072
Engineering	3.437	774	4.211
Other	1.282	209	1.491
Total	19.828	3.401	23.229

Source: Bundesministerium für Wissenschaft und Verkehr (1999).

2.7.5 Distance Education

Distance education (*Fernstudien*) has been provided since 1979 by the *Interuniversitäres Forschungsinstitut für Fernstudien*. This Institute has links with all major Austrian universities and offers special courses for adults seeking employment. The programmes which have been developed so far are courses in Applied Mathematics, Energy Counselling, Teacher Training and Psychotherapy. While these programmes are being developed, students may study at the Germany based Fernuniversität Hagen, which offers normal degree courses in

Economics, Law, Social Sciences, Education and Management. Students at the Fernuniversität Hagen living in Austria may turn to the centres in Linz, Bregenz and Vienna for technical and social advice. The courses offered in cooperation with the Fernuniversität Hagen include Business Management, Economics, Mathematics, Informatics, Electrical Engineering, Educational Sciences, Sociology, Political Science, Philosophy, Literature, History and Social Behavioural Sciences. Some 2,000 students are currently making use of this facility. Under the University Studies Act, Austrian universities may set up distance study courses. The Centre for Distance Studies at the Johannes Kepler University Linz with several study centres in Austria was created in an effort to support students in distance learning programmes.

3 RESEARCH INFRASTRUCTURE

3.1 Introduction

In 1970, the Ministry of Science and Research was founded in order to recover the ground it had lost during war and restoration periods, by taking specific promotion measures and setting policy priorities. The Ministry was confronted with specific problems: universities with rapidly rising numbers of students requiring large investments in buildings, staff and equipment; scientific research that was insufficiently funded and, by international standards, marginalised in certain fields; and a subsidised, protected economy with an overly large share of basic industries that failed to provide for adequate research. In an intensive process of recovery, Austria worked out appropriate measures and caught up with West-European development standards. A legal framework for organised research and scientific deliberation was established along with financial incentives. Special measures for neglected research areas were taken and interest in certain subjects of research was stimulated. In addition, Austrian internationalisation of research was promoted by bilateral and multilateral agreements.

For science, research and development, the Government Agreement 2000 to 2004 sets the objective of increasing the share of research and development expenditure in the GDP significantly, i.e. to 2.0% by 2002 and to 2.5% by the year 2005. This is part of a new innovation policy of the Federal Government. The aim is to carry out 'investments' securing a successful future scientific, economic, social and cultural development in Austria, as well as to connect to European developments in research and technology, so that Austria's science and economy can remain competitive and improve their competitiveness in Europe demonstrably, both in regional - mainly Central European - and in global competition.

3.2 Providers

The Austrian research scene is characterised by the dominant position of the universities on the one hand, and by the predominant small and medium-sized structure of enterprises carrying out research on the other. By international comparison, the non-university research institutions are structured in small units, with few exceptions. They are highly heterogeneous with regard to their special field, and they are predominantly publicly funded.

At the time of the latest full R&D survey, for the year 1998, Austria had 2,743 institutions carrying out research, with approx. 31,300 employees in R&D (calculated in full-time equivalents). About 60 % of these employees (18,715 full-time equivalents) are scientific staff, i.e. have an academic or equivalent education; staff with other post-secondary diplomas, i.e. technicians and equivalent staff, accounted for approx. 25 % (7,919 full-time equivalents); the remaining approximately 15 % (4,674 full-time equivalents) were other supporting staff. The enterprise sector was the biggest employer of researchers, employing about 63% of scientific staff in 1998.

3.2.1 University Research

The combination of research and teaching is a basic principle of the Austrian higher education system. University institutes are facilities of both teaching and research. The expansion of universities and reform measures were carried out also under the aspect of intensifying university research. The fulfillment of research duties is to a very high degree subject to the self-governing authority of the scientific university staff. The university organisation law of

1993 explicitly provides for an obligation to coordinate research within the university. The universities as a whole are the largest research institution in Austria. Approximately 42 % of the total higher education budget, 815 million Euros or 69 % of total public R&D expenditure, were statistically accounted for by university research in 2001. The universities raise funds for project research from the Austrian Science Fund (FWF). Ninety percent of FWF's funds - as well as those of the *Jubiläumsfonds der Oesterreichischen Nationalbank* (Anniversary Fund of the Austrian National Bank) - go to university researchers, mainly for basic research. Another part of research funding, which is increasing, comes from commissioned research contracted by the public or the private sector (external funding) (BMBWK, 2002d).

The 12 universities, 5 universities of the arts, 1 arts academy and 1 university for postgraduate education, together with the Academy of Sciences, are the core of academically oriented knowledge production in Austria. 1,015 institutions teach and carry out research. A total of 6,820 full-time equivalents were employed at Austrian universities for R&D purposes on record date 1 January 2001, approximately 65% of which were scientific staff. More than a quarter of these worked in the scientific disciplines human medicine (including clinics) and natural sciences, one sixth in the social sciences, slightly above one eighth in the technical sciences, and about one tenth in the humanities. In 1998, university research staff published 62,861 publications, 27,740 of which were papers and presentations at scientific conferences, and they applied for 232 patents (BMBWK/BMVIT, 2002).

3.2.2 Research in the *Fachhochschulen*

Fachhochschulen have the right and obligation to perform applied research. However, the size of those activities is still limited.

3.2.3 Research Institutions

Federal Scientific Institutions

There are several Federal Scientific Institutions that also carry out research tasks, in addition to the broad range of services they offer. The amendment of the Forschungsorganisationsgesetz (FOG 2000 – Research Organisation Act) regulates the organisation of their restricted legal capacity. The ministry is responsible for the following institutions:

- Amongst others, the "*Zentralanstalt für Meteorologie und Geodynamik*" (ZAMG – Central Institute for Meteorology and Geodynamics),"MEET AUSTRIA", for short, has as its mission to "provide a meteorological and geophysical service, as well as to provide meteorological and geophysical data and information for public crisis management and comparable international supervisory institutions with regard to controlling natural or environmental disasters".
- The *Geologische Bundesanstalt* (GBA - Geological Survey of Austria) is among the oldest institutions in its special field in Europe. It serves as a central information and advisory institution for the Federal state in the field of earth sciences and geo-technology.
- Austrian Archaeological Institute and the Institute for Austrian History Research.
- The Austrian National Bank and the *Bundesmuseen* (Federal Museums) also carry out research and investigations in their respective special fields.

Austrian Academy of Sciences (ÖAW)

The Austrian Academy of Sciences (ÖAW) is a research institution with its own legal basis. Currently it has 21 institutes, 2 research institutes and 34 scientific commissions, which makes it the largest non-university institution for basic research in all scientific fields. The

Academy employs about 600 staff, 71% of which are academics or equivalent, and it is primarily funded by the ministry.

International research cooperation is a special priority for the Academy of Sciences. The Academy is a contracting partner of international organisations such as the European Nuclear Research Centre CERN, or the Max von Laue-Paul Langevin Institute in Grenoble. The Academy also participates in a large number of international research programmes, such as the EU Framework Programme for RTD, or the ESA or UNESCO research programmes (e.g. on global environmental issues). In recent years, the Academy of Sciences has also increasingly engaged in participation in the Framework Programme for Research and Technological Development.

Transfer of scientific research results into exploitation in industry has been intensified by the Academy of Sciences by establishing the Institute for Molecular and Cellular Bio-Informatics (IMBA), a joint venture between industrial research, university institutes and the Academy of Sciences. The fact that it is located at the "Vienna Biocenter", which also hosts institutes of the University of Vienna, the "Research Institute for Molecular Pathology GmbH" (IMP) and some start-up companies, is intended to facilitate joint research, and to promote research in molecular biology.

Other publicly funded Research Institutions

The ministry finances a large number of research institutions by means of base funding and funds them through commissioned research. These are predominantly research institutions registered as associations, which mainly concern themselves with human medicine, social sciences and the humanities. Among the larger institutions are the following:

Ludwig Boltzmann-Gesellschaft - *Österreichische Vereinigung zur Förderung der wissenschaftlichen Forschung* (Ludwig Boltzmann Society – Austrian Association for the Promotion of Scientific Research) – is the carrier organisation of currently 131 institutes and research centres with about 260 jobs. Its main focus lies in the field of human medicine; about two thirds of all departments and research institutes have been set up in this area.

The Institut für Höhere Studien und Wissenschaftliche Forschung (IHS – Institute for Advances Studies and Scientific Research) provides postgraduate education and training, in addition to its research activities. Its main focus is on sociology, social psychology, political sciences, economics, statistics and related disciplines.

The Internationales Forschungszentrum Kulturwissenschaften (IFK – International Research Centre for Cultural Sciences), founded in 1993, promotes interdisciplinary research and training in the cultural sciences at an advanced scientific level. It regards itself as a meeting point for Austrian and international scientists. Events organised by the IFK are problem-oriented, method-conscious, transdisciplinary, self-reflective and discursive. Talented young researchers are promoted by means of scholarships.

The Ost- und Südosteuropa-Institut (OSI – Austrian Institute of East and South-East European Studies) was founded in 1958, as a non-profit association named "Arbeitsgemeinschaft Ost" (working party for Eastern Europe). Its tasks comprise international and multidisciplinary research, teaching, science organisation and documentation in the region of Eastern, Central Eastern and South-Eastern Europe. Since 1990, five branch offices have been opened in Eastern and South-Eastern European countries, by order of the former Ministry of Science, in order to intensify bilateral scientific relations.

The Erwin Schrödinger Institut für Mathematische Physik (ESI – Erwin Schrödinger Institute for Mathematical Physics) was founded in 1993 as an international meeting point for excellent scholars from the fields of mathematics, physics and mathematical physics. Four larger conferences are held annually, with two of them each (one on mathematics and one on physics) running parallel and offering as many technical points of contact as possible.

The Österreichische Institut für Internationale Politik (OIIP Austrian Institute for International Politics) is a politically independent non-university research institute, founded in 1978 and active in the field of analysing foreign politics.
The Institut für die Wissenschaften vom Menschen (IWM – Institute for Human Sciences) was founded in 1982. It is an "Institute for Advanced Studies" and a scientific meeting point. Fellowships provide opportunities for exchanging ideas on an international level.
The Österreichisches Studienzentrum für Frieden und Konfliktlösung (Austrian Studies Centre for Peace and Conflict Resolution - ÖSFK) was founded in 1982 as an independent non-profit institute. It is both a research and a teaching institution and has founded the "European University Center for Peace Studies" (EPU). A peace museum is currently being installed at Burg Schlaining. In 1987 the centre was awarded the UN "Peace Messenger" status, and in 1995, together with EPU, the UNESCO Prize for Peace Development.
The Österreichische Forschungsgemeinschaft (Austrian Research Association - ÖFG) is funded by the Federal and regional governments. It was founded in 1977 in order to provide new impulses for research promotion and science policy in Austria. Its activities comprise dealing with fundamental science policy issues, initiating interdisciplinary research activities within its own working groups, specialised research funding programmes, and giving awards for outstanding scientific achievements.
The Institut für Wissenschaft und Kunst (Institute for Science and the Arts - IWK) was founded in 1946 and carries out research and educational activities in the field of science and adult education. One of the institute's main tasks is to make scientific work accessible to the public and to develop and discuss interdisciplinary issues with international participants in its lectures

3.3 Legislation

The *Bundesministeriengesetz* (Federal Ministries Act) Federal Law Gazette No 16/2000 of 31 March 2000, has given the Austrian Federal administration in ministries a new structure: Two large new areas of responsibilities have been created: The Federal Ministry for Education, Science and Culture is responsible for matters relating to research and teaching at universities, and for non-university research institutions in the area of basic research and general scientific research. It is also responsible for the co-ordination of international affairs in the research area. The responsibilities of the Federal Ministry of Transport, Innovation and Technology comprise matters concerning industry-related research, technology development and innovation funding, as well as issues relating to the creation of priority areas of research in national research programmes by the Council for Research and Technology Development. This ministry also acts as the supervisory authority for the research funds. The Federal Ministry for Economic Affairs and Labour funds research co-operations between science and industry as well as innovation projects in enterprises under various programmes. In Austria, each ministry is responsible for research issues within its specialised area of responsibility; at the level of the Federal provinces, the responsibility for research issues lies with the respective provincial government.

Currently, core research and technology issues are regulated by four different acts:

- the *Forschungs- und Technologieförderungsgesetz* (FTFG – Research and Technology Funding Act): regulates the activities of the FWF (Austrian Science Fund) and of the FFF (Austrian Industrial Research Promotion Fund). This act has also created a new structure for research and technology consultation.
- the *Forschungsorganisationsgesetz* (FOG – Research Organisation Act): regulates the tasks of those publicly owned scientific institutions that are under the responsibility of the Federal Ministry for Education, Science and Culture, as well as the organisation of their restricted legal capacity. It also regulates reporting on the situation of research, technology and innovation to the Nationalrat.

- the *Innovations- und Technologiefondsgesetz* 1987 (ITFG – Innovation and Technology Fund Act): defines the tasks of this administrative fund. The Innovation and Technology Fund finances applied research and development and promotes the implementation of research results in products and processes in trade and industry.
- the *Universitäts-Organisationsgesetz* 1993 (UOG – University Organisation Act): has significantly increased the autonomy of universities; the corresponding organisational structures for both teaching and research have been adapted to this development.

In the new University act 2002, a variety of issues in this respect are addressed, including the procedures regarding patents. This act will be active staring January 1 2004.

3.3.1 Research Funding

With regard to research expenditure, Austria is currently average among the OECD countries, with a current rate of about 1.9% (measured against the gross domestic product). In 2000, R&D expenditure was estimated to be slightly above 3.634 billion Euros. 32% of R&D expenditure were accounted for by the Federal state, which is significantly higher than the international average share of public R&D funding. The enterprise sector, on the other hand, was slightly below the EU average, accounting for around 40%; this is due to the small and medium-sized enterprise structure and the lack of research intensive industry such as aviation or office machines/computers. European integration has contributed significantly to international groups using Austria's advantages as a location. Currently, about 21% of research expenditure in Austria is financed from abroad, in particular by European enterprises, which have chosen Austria as their research location (Cordis, 2002).

Research funding by the Federal State comprises a broad range of financial measures with direct and indirect effects. Financial research funding is based on the one hand on financing the establishment and operation of research institutions (i.e. their personnel and infrastructure costs) and on the other hand on funding for research programmes and projects by publicly endowed research funds and by commissioned research and incentives of the Federal ministries.

The funding range is supplemented by funding research scholarships for young scientists which enable them to acquire know how at renowned institutes abroad; by funding scientific conferences and symposia, and by funding publications in which research results are presented to experts. Public endowment of prizes for research achievements is a visible recognition of outstanding achievements and motivates scientists to compete and to improve the quality of their work. Indirect research funding is mainly effected by way of tax relief for R&D investments in enterprises, as well as by tax privileges for private donations to research institutions to carry out research and teaching tasks. The work programme of the Federal government provides for a number of far-reaching reforms for the areas of science, research and technology: One of the priority objectives is to increase the research quota to 2.5% of GDP by 2005. An intermediate target is to increase the quota to 2.0% of GDP by 2002.

The creation of an independent Council for Research and Technology Development, as provided for in the work programme, has been given its legal basis by the amended *Forschungs- und Technologieförderungsgesetz* (FTFG 2000 – Research and Technology Funding Act). The Council consists of eight experts and advises the Federal government, individual Federal ministries and the Federal provinces on issues of research and technology development. Its central tasks are, amongst others, preparing a long-term research strategy for Austria, preparing recommendations concerning guidelines for research funding, continuously reviewing the recommended steps for implementation, as well as providing advice on how to strengthen Austria's position in international RTD cooperation.

Priority objectives of the Federal government in the area of research and technology are the following: Networking with European partners and targeted extension of competence clusters; extension of funding under programmes by creating national research programmes with thematic focuses, matching current EU programmes or in preparation of the new Framework Programme. Biotechnology and genetic engineering are a major priority research and development field, amongst others. “e-Austria”, a specific Austrian programme, emphatically aims at improving qualifications in information technology and telecommunications in a European context (e-Europe). Intensifying the dialogue between science and society will contribute to reducing scepticism towards science; a special programme is being prepared for this purpose.

The further development of university reform should contribute to the universities becoming really independent, with three-year contracts based on performance indicators (full legal capacity). It should also intensify competition between universities. By introducing a modern, performance-oriented civil servant law, which includes the possibility of changing between university and industry, opportunities for mobility between individual professions should be improved. The opportunities for young academics to start a scientific career should also be improved. In order to increase output quality, mandatory regular evaluations with consequences (also concerning the efficiency of research funding) have been provided. Their results should be made publicly available.

4 FINANCIAL ASPECTS

4.1 Introduction

In this chapter the financial aspects of higher education are discussed with exception of the expenditures on research and development which were already discussed in section 3.2.

4.2 Institutional finance

The higher education institutions are mainly funded by the federal government. The higher education budget consists of the following expenses necessary for the operation of the higher education system and allocated to different budget items: personnel costs and operating expenses of universities; expenditure for buildings; federal contribution to university clinics; promotion of research relevant to higher education; specific supports and social security benefits, mainly for students; financial support of the federal government to the *Fachhochschulen*.

The expenditure for higher education has risen from 1,29 billion Euros in 1990 to 2,39 billion Euros in 1999. This is a nominal increase of 85% including the year 1999. Adjusted for inflation this corresponds to an increase by 54 %. Consequently, the development of the higher education budget in the 90s ran parallel to the increase in students and the academic personnel. The share of the higher education budget in the federal budget has risen in the last decade from around 3,2% (1990) to around 4,2% (1999). The higher education budget accounts for around 1,2% of the GDP and corresponds to the average of OECD countries. The sustained increase of the share of the higher education budget in GDP shows the growing importance of higher education for the society as a whole.

University sector
The scientific universities account for the greater part of university expenditure with 71%, the universities of art and music account for 6,1%, *Fachhochschulen* for 2,5%. 21%, which include a major part of promotion of research and student support expenditure, cannot be directly assigned to one of these three sectors. The division of university expenditure 1999 by components shows the following picture: personnel costs account for the greater part with 40,5%, current expenditure accounts for 37,5%. Investment expenditure (buildings, fixed assets) accounts for 5,6%, the remainder is used for supports (chiefly promotion of research and student assistance).

The size of the university and the number of students play a decisive role in the budget of the individual universities. In this context, indicators are more telling than absolute statistical numbers. They can be calculated by relating the expenditure to the number of students of a facility or to the personnel. These show that the expenditure per student at the personnel-intensive universities of art and music is substantially higher than at scientific universities. On the other hand, larger facilities spend less per student than smaller ones. The subject orientation is also an important factor. Thus, the Vienna University of Economics and Business Administration has the lowest expenditure and the University of Veterinary Medicine in Vienna the highest expenditure per student.
From 2004 on, the funding of universities will be based on three-years performance contracts. Each university has to negotiate with the federal government for its budget. Part of the budget may be reduced if the university does not live up to the contract.

While the major part of university funding comes from the federal budget, the amounts acquired from contractual work (e.g. research commissions) are gaining in importance. The universities and their partly autonomous institutions (faculties, institutes, etc.) can act as independent economic units under private law. The University of Agricultural Sciences in Vienna, the University of Leoben (mining and metallurgy) and the Technical Universities of Graz and Vienna have a particularly high income from contractual work. The medical faculties are also very active in this field. According to the financial accounts 1998, the universities' income from private sources reached approx. 130 Million Euros.

Fachhochschulen sector
The *Fachhochschule* sector is primarily financed by public resources, but differs fundamentally from the financing of educational establishments of the federal government. The Development and Financing Plan for the *Fachhochschule* sector contains the criteria for the allocation and the amount of a federal subsidy and the development of the sector. The first planning document of this kind was adopted by the federal government in 1994, the second in 1999.

The federal government grants a subsidy per study place and academic year; the investments have to be borne by the provider. The aim is to stimulate corporations and industry to invest in education, to take advantage of available resources and to increase the involvement of those institutions which have a demand for certain types of programmes and graduates. The criteria for federal subsidies focus on the completion in terms of content and structural adjustments of the post-secondary educational system, a regionally balanced higher education offer and improved access for new until now disadvantaged target groups. The consolidation of existing *Fachhochschule* locations and the promotion of target groups such as women and students with non-traditional educational patterns were added to the catalogue of criteria of the 'Development and Financing Plan II'. Also the structure of study programmes and the social and cultural environment of the study offer play a role in the evaluation. Eventually, providers are encouraged to incorporate distance learning modules.

The amount of the federal subsidy follows the standard costs that were calculated based on the school and university sector. The federal government bears 90% of these costs, which corresponds to 6.903,92 Euros in the technical subjects, 5.813,83 Euros in the business fields and 6.104,52 Euros in interdisciplinary study programmes per study place and academic year. Whereas initially the decision to fund an accredited *Fachhochschule* programme was taken by the federal government alone, the *Fachhochschule* Council has now been involved within the scope of its advisory function on educational policy issues. In 2000, 61.5 million Euros of the federal budget were spent for almost 7.900 study places, the proposed budget for 2001 amounts to 80 million Euros.

4.3 Student support and tuition fees

4.3.1 Tuition fees

The government intervention that caused the most commotion – especially in the student community – has been the introduction of student fees. Before 2000, university students had free access to the universities. As from autumn 2001 students of both universities and *Fachhochschulen* will have to pay 363 Euros for every semester. Students from outside the EU, The EEA or Switzerland have to pay 726 Euros per semester.

4.3.2 Student support

Since the 1970s Austria has been committed to a policy of open access to higher education. It is part of this principle to make up for different social and financial backgrounds of students through a system of educational supports. The public support measures can be divided into direct educational supports, which the students receive directly as monetary transfers, and in indirect supports, which are designed as transfer payments to families and social facilities.

Study grants

Presently, direct supports are mainly regulated by the Study Support Act 1992 and comprise a set of measures. The most important direct support is the study grant. Against the background of the parents' support obligation the study grant should make up for the difference between the economic efficiency of parents (or other persons with support obligation) and the required resources for studying children. The criteria for the receipt of a study grant are social need and a successful academic record. A successful academic record means that examinations have been passed according to curricula, the study may only be changed at the beginning of a study and the legal duration of studies has not been significantly exceeded, i.e. by not more than one term per stage of study. The maximum study grant is, according to criteria relating to the living situation of students (e.g. studying at home or outside the hometown; whether or not the student had been working before; marriage and/or obligation to care for a child/children), between 70.000 ATS and 107.000 ATS (5.087 to 7.776 EUR) per year as of the winter term 1999/ 2000. The average study grant in the winter term 1999/2000 was 53.300 ATS (3.873 EUR). About 14% of all Austrian students receive a study grant. The support quota is lowest at the scientific universities, but is about 30% at the *Fachhochschule*.

Other direct supports are transport allowance, contribution to insurance costs, grants for studies abroad, traveling allowance and language scholarships; scholarships awarded for excellence and special academic performance or for the writing of theses and artistic work; grants for the completion of studies; supports to compensate for social hardship .

Indirect educational supports

Indirect educational supports are designed as transfer payments and mainly regulated in the family and tax legislation. The most significant payment is the family allowance, which is due to all parents with studying children and ranges as of the year 2000 from 124 to 171 Euros per month depending on the number and age of dependent children. The family allowance is paid for all studying children regardless of the criteria of social need. The age limit is 26 years, in special circumstances 27 years. At this time family allowance is paid for almost 70.000 students at universities, universities of art and music and the *Fachhochschule*.

The general tax credit for children allows the tax depreciation of 51 Euros per month for each studying child for whom a family allowance is received. For children who study away from home an additional amount can be claimed as extraordinary financial burden. Students are also integrated into the obligatory legal accident insurance. Students are incorporated into the system of health insurance through co-insurance with parents or partners or by an inexpensive self-insurance.

The promotion of canteens and student hostels is to a large extent carried out by the Department of Education and is another form of indirect social educational support.

Reforms of educational supports

The development of the various systems of educational support since the beginning of the 90s is characterised by different tendencies. In total, a shift from indirect support measures to direct supports could be observed. The harmonisation of systems, particularly of the requirements for the claim for study grant and family allowance, should strengthen the legal

security, increase the fair distribution of supports and simplify the administration. However, since the middle of the 90s savings measures to consolidate the budget had a strong impact on educational supports for students. This affected, above all, payments from the Fund to compensate the burden of families: e.g. elimination of subsidies to transport costs and elimination of free use of public transport for students; reduction of the number of family allowances by approx. 20.000 by linking the entitlement to the legal duration of studies. In 1999 and 2000, payments from the Fund to compensate the burden of families have been expanded by the increase of the family allowance and the introduction of graduated payments for more children.

The most important reform measures with regard to study assistance since 1990 are as follows:

- With the 1999 amendment to the Study Support Act of 1992 and to the Act to compensate the burden of families, the period of the integration process of direct and indirect support measures has temporarily drawn to a close. The requirements for the claim of a study grant, family allowance, tax credits and health insurance have been harmonised to a large extent. The amount of the study grant is calculated from the family allowance and the tax credits for children. A successful academic record is a condition for the receipt of the above mentioned supports. Another prerequisite for study grants is social need.
- The necessity for adjustments in view of a new legal framework mainly resulted from structural changes in the tertiary educational sector, particularly the introduction of *Fachhochschule* programmes, and from the university studies act of 1997.
- By increasing the maximum study grant, adjustments to the income development and the expansion of the number of recipients of study grants could be achieved.
- Students in special situations of study: The study support system is oriented to "typical" students, but the group of students under atypical conditions is growing: older and working students as well as students with children. The conditions for students with own children have now been improved in several reform steps. A grant for the completion of studies was introduced for working students as of the summer term 1999 to enable students after a longer period of employment to complete their studies without any professional burden.
- Promotion of internationalisation: since 1992 it is possible to receive a study grant during four terms of studies abroad (previously: two terms). In 1999 additional improvements of international studies were made by extending the receipt of a subsidy to study abroad (in addition to the study grant) to a maximum of 20 months and by introducing the travelling allowance and language scholarships.
- Student hostels are operated by supporting organisations whose building activity is supported by the Department of Education. Based on demand assessments at the beginning of the 90s the federal government has adopted a 10-year programme for the establishment of additional 7.000 places. The number of places in student hostels has actually risen from approx. 18.300 in 1990/91 to approx. 25.000 in the year 1999/2000, in other words the programme can be regarded as fulfilled. Another key area is the refurbishment and quality improvement of existing student hostels.

5 GOVERNANCE STRUCTURES

5.1 Introduction

The federal government has given up its teaching monopoly at the tertiary level by the establishment of the *Fachhochschulen* sector. Together with the new University Organisation Act of 1993, its amendments of 1997 and 2001, the University Study Act of 1997, and the new University act 2002, these are the most important developments in higher education in the past decade in Austria. These developments have had a substantial impact on the division of responsibility over higher education through the transfer of authority to the institutions and intermediary bodies.

5.2 Federal and regional governance

Federal governance Austria's educational system is based on the 1962 Federal Constitution Act, which defines the division of powers between the central Government, provinces and districts with regard to non-university education. Universities, colleges of art and music and *Fachhochschulen* fall under the responsibility of the Ministry of Science and Research. However, other ministries are involved: the Federal Ministry of Economic Affairs for university buildings, the Federal Chancellor's Office for staff administration and the Federal Treasury for establishing the budget of the university sector.

The Federal Act on the *Fachhochschule* study programmes of 1993 breaks with the tradition of centralised detailed stipulations and introduces new mechanisms of regulation into the Austrian educational system. It is a framework law with regulations for the recognition (*Anerkennung*) procedure of *Fachhochschule* study programmes. Minimum requirements are laid down in terms of content. The sector is characterised by quality assurance (recognition and evaluation), mixed funding, private maintainers of *Fachhochschule* offers and a practice-oriented design of study programmes. At the end of 2002, a reform act regarding the Federal act on *Fachhochschul* programmes was proposed. The main changes are: the term *Anerkennung* is replaced by accreditation; institutions have to develop their own quality management system; the power of the *Fachhochschulkollegium* (to be called *Senat*) will get less power. The proposal will be voted on by the end of the summer of 2003.

The University Organisation Act of 1993, a first major reform step, provided the basis for an institutional autonomy of universities. Extensive decision-making powers were shifted from the Federal Ministry to the universities in order to enable them to introduce business management and service-oriented conduct and thus to achieve efficiency and quality enhancements, more cost effectiveness and accordingly a better use of resources. The reform of the university organisation and its extension to the universities of art and music marked the whole of the nineties. Firstly extensive discussions about the specific organisation took place. This process was followed by the introduction of the legal basis with the University Organisation Act of 1993 and its systematic implementation at the universities. The first phase of the organisation reform could be fully implemented at the scientific universities at the beginning of 2000. The implementation in accordance with the organisation law for the universities of art and music of 1998 is making rapid progress at the universities of art and music.

5.3 Intermediary organisations

5.3.1 Fachhochschule Sector

Fachhochschulrat
The *Fachhochschulrat* (*Fachhochschule* Council) is the authority responsible for the initial accreditation, the evaluation and the extension of the accreditation of *Fachhochschule* degree-programmes (FH-degree-programmes). The central tasks of the FH-Council consist of the accreditation as a form of ex-ante quality assurance and the evaluation as a form of ex-post quality assurance. The main focus of the activities of the FH-Council is to assure the quality of the *Fachhochschule* Sector. The *Fachhochschule* Council has 16 members, one half of whom come from the university field and must be academically qualified by habilitation; the other half of members come from business/industry. The members of the *Fachhochschule* Council carry out their duties part-time and in the execution of their activities are not subject to ministerial directives. The FH-degree-programmes are accredited by the *Fachhochschulrat* for a maximum of 5 years. Each application for continuation accreditation requires the submission of an evaluation report. Since 1997 about 40 FH-degree-programmes have been evaluated. Until this year the evaluation procedure has been focused on the programme approach. However, beginning from 2002 there will be basically an institutional evaluation.
5.3.2 University Sector

Österreichische Rektorenkonferenz
The Austrian Rectors' Conference (*Osterreichische Rektorenkonferenz*, ORK) is an interinstitutional forum for the executive officers of Austria's eighteen universities and colleges of art and music. Its main assignment is to articulate and co-ordinate the policies of these institutions, to represent the universities' collective interests and to promote the exchange of ideas and information among its members. The responsibilities of the Rectors' Conference reflect its functions as a coordinating body and as the representative of collective university autonomy. In this context the Rectors' Conference is an inter-university forum for exchanging information, experience, suggestions and ideas. It formulates opinion, submits recommendations and articulates guidelines. The Rectors' Conference is entitled to submit expert opinions and recommendations to the Austrian Federal Ministry of Science on all matters pertaining to higher education.

The Austrian Rectors' conference started in the 1994/95 academic year with a full and complex agenda. University reform – the implementation of the far-reaching *Universitäts Organisationsgesetz* of 1993 – is one of the greatest challenges the universities, their rectors, and the ORK had faced in recent years. Five institutions (University of Agriculture, Forestry and Renewable Natural Resources in Vienna, Technical University Graz, Leoben University of Mining and Metallurgy, Johannes Kepler University Linz and the University of Klagenfurt) began implementing the UOG that fall, and other Austrian universities were scheduled to do so in the years after. One of the objectives of the UOG has been to increase the autonomy of the universities and it ultimately strengthens the position of the rectors as the chief executive officers of institutions. One of the tasks of the Rectors' Conference has been to facilitate a fluid transition from the old to the new universities.

Akkreditierungsrat
The Austrian Accreditation Council was established in March 2000.It comprises eight members, all of whom are European university experts. The most important feature of the Accreditation Council is its independence. It is not bound by any directives. Its duties are regulated by the University Accreditation Act. The Accreditation Council has two basic tasks: to carry out institutional accreditation of private universities and to supervise accredited

private universities. The Accreditation Council comprises eight members, who are acknowledged experts in the field of international higher education. Its members are appointed by the federal government. Four of the eight members are nominated by the Austrian Rectors' Conference. Before being awarded to the applicants, accreditations must be approved by the Federal Minister under the aspect of national interests of educational policy. Private universities are answerable to the Accreditation Council in matters relating to expenditure for rooms, current expenditure and personnel costs, quality assurance, students and graduates. The Accreditation Council has to submit a report of its activities to the National Assembly on an annual basis.

5.4 Governance in higher education institutions

5.4.1 Fachhochschule sector

For the establishment and the expansion, from the mid-nineties, of the *Fachhochschule* sector, three concerns of educational policy were decisive: diversification, deregulation and increased permeability of the educational system. Diversification means that the growing participation in education and the increased number of professions requiring university qualifications should be matched with a wider range of educational offers in the tertiary sector. It was modeled on vocational higher education systems in Europe. Deregulation was achieved by defining the *Fachhochschule* study act as a framework law that regulates the principles for the organisation of the sector and the procedure for the recognition of *Fachhochschule* study programmes. The *Fachhochschule* Council, an independent body, is responsible for the accreditation. The criteria for the public funding of study places and the expansion of the sector are laid down by the federal government in a five-year development plan for the *Fachhochschule* sector. The objective of permeability is a result of the increasing demand for further training and higher qualifications. With a view to lifelong learning and equal opportunities, special attention has to be paid to the permeability between the dual system of vocational education and higher education.

The key aspect of the *Fachhochschule* law is the accreditation model. The law set up a central ac- crediting council, the *Fachhochschulrat* (see above). The law provides an outline of *Fachhochschule* courses, the powers of the *Fachhochschulrat* to make rules for recognition of courses and the reserve powers of the minister. It enables the *Fachhochschulrat* to identify those doctorates (in universities) that a *Fachhochschule* course qualifies for (though the university retains the right to state whether extra study will be needed by *Fachhochschule* graduates). It also enables institutions to apply to the Minister for designation as a *Fachhochschule*, provided they meet a number of conditions including offering at least two *Fachhochschulrat* approved courses, have a *Kollegium* (academic board), plans for development and that teaching staff is able to carry out applied research.

In the historical context of Austria, the *Fachhochschule* policy is particularly radical. The *Fachhochschulrat* is set up as an autonomous board, which is not subject to instructions. It is to base its decisions on the criteria of scholarship and the correspondence between the curriculum and vocational requirements. For this purpose it is further intended that continuous research is carried out for the evaluation of curricula and for the investigation of vocational areas, development work concerning innovations in teaching and further training measures for the teaching staff.

The accreditation model is meant to permit a large variety of institutions to offer courses, while ensuring unified standards at the same time. It reflects the debate on school and

university organization, with its doubts whether the centralized and legally close-meshed education system is able to meet the heterogeneous demands of students and society .The creation of particular institutions (*Fachhochschulen*) is not necessary for *Fachhochschule* courses to come into existence. In contrast to the former system characterized by high density of regulation and the strong role of the state in establishing curricula and formulating their content, the accreditation model provides for a variety of curricular initiatives by any possible *Fachhochschule* provider. The *Fachhochschulrat* is not directly subject to political influence. It's board of experts is not bound by ministerial instructions. Accreditations by the *Fachhochschulrat* will be for a limited time, tied to a mandate for evaluation.

The *Fachhochschule* policy is intended to have implications for both staff and students. The traditional Austrian (university) system is characterized by high power at the top level, the state, and high power at the bottom level of the organization, represented at the universities by full professors. The *Fachhochschule* model is based on the idea of 'corporate autonomy' rather than individual autonomy (Pratt, 1993). Teachers would be more strictly bound by the curriculum. In the accreditation model the 'middle level' of the system is to be strengthened. In the context the 'middle level' is the operating institution, represented in curricular matters by the course team. They will have the right to propose a curriculum, administration of resources, elaboration of syllabuses, awarding of teaching contracts, detailing funding decisions. This constitutes a change from the former situation.

5.4.2 University governance

The basics of contemporary university government in Austria are laid down in the University Organisation Act, the University Studies Act (1997) and the University Act (2002).

The University Organisation Act (1993)
The University Organisation Act of 1993, a first major reform step, provided the basis for an institutional autonomy of universities. Extensive decision-making powers were shifted from the Federal Ministry to the universities in order to enable them to introduce business management and service-oriented conduct and thus to achieve efficiency and quality enhancements, more cost effectiveness and accordingly a better use of resources. The reform of the university organisation and its extension to the universities of art and music marked the whole of the nineties. Firstly extensive discussions about the specific organisation took place. This process was followed by the introduction of the legal basis with the University Organisation Act of 1993 and its systematic implementation at the universities. The first phase of the organisation reform could be fully implemented at the scientific universities at the beginning of 2000. The implementation in accordance with the organisation law for the universities of art and music of 1998 is making rapid progress at the universities of art and music.

When the new organisation law was implemented at the universities, the university organs frequently faced the limits of the autonomy granted. The flexibility in the management of resources has remained restricted as the general regulations for employment, payment and budget of the federal government continue to apply. Therefore, the government programme 2000 adopted the aim of higher education policy to vest universities with the status of real autonomy with achievement agreements for several years ("full legal capacity"). Consequently, the University Organisation Reform has entered into a second phase (after the first according to organisation law of 1993 and its implementation in the nineties) which develops the currently restricted institutional autonomy of universities into a full legal capacity with a management culture similar to that of private companies. In 1999 the Federal Ministry published a relevant paper for discussion on which in spring 2000 the Rectors' Conference gave its view in a black paper entitled "Universities in Competition. On the

Restructuring of Austrian Universities." Subsequently, a working group in the Federal Ministry should submit proposals for implementing these reform plans. Finally, under the slogan "Modern Studies and Research" several projects for the further development of the university sector and the cornerstones of the reforms were presented, the legal bases of which will be created in the year 2001. A new employment law for university teachers (*Universitätslehrer-Dienstrecht*, 2001) and the extended autonomy of universities are at the heart of the reforms, which are supported by the adjustment of locations and key areas in the study offer as well as additional investments ("University Billion").

The reform of employment law should facilitate the transfer of universities into the extended autonomy, make new careers for university teachers possible and especially strengthen contractual employment (unlike the current prevailing employment according to civil servant law). University teachers will be offered careers according to a 4-pillar model – academic employee, university assistant, temporary contract professor and professor with an unrestricted contract ("tenure"). The transitions from the time restricted positions no longer occur within a closed civil servant career, but by application. As a result, the mobility of university teachers between Austria and abroad as well as between the economy and the academic world will be encouraged. The entrance opportunities for the scientific recruits will be improved. For physicians employed by the federal government special regulations will be laid down which contain new categories of physicians (physician in training, specialist, senior physician, general practitioner, university professor/clinical medicine) and also restricted or unrestricted forms of contractual employment.

The universities were traditionally managed by self-governing bodies and only represented by the rector or the dean in relations with outside partners. The organisation law of 1993 transferred major decision-making powers in the daily university management to the rector, dean or dean of studies (monocratic organs). Their control by democratically constituted self-governing bodies (which represent the various groups of university members and students alike) with the authority for setting up guidelines and directives has not been given up. The self-governing bodies (University Senate, Faculty Collegium, Curricular Committee and Institute Conference) are responsible for steering issues whereas the operative management at the corresponding level of organisation is exclusively reserved to the monocratic organs.

The University Advisory Board was introduced to advise the rector on inner-university development planning issues. In view of its composition (representatives of regional authorities, employers and employees, the international cooperation sector of the university as well as graduates) it is an important link between university, industry and society.

In terms of financing, the so far customary practice of the Federal Ministry of individually allocating resources directly to the applying organisational units of the university was replaced by a procedure of university budgeting that provides for global budgets. The budget proposal of the university included a global budget and, in addition, a variable budget depending on changes in the services offered. Major investments were funded separately. The distribution of the actually allocated permanent posts and funds within the university is the responsibility of the rector and within each faculty of the dean. The role of the dean of a medical faculty in the resource allocation was comparable to the rector.

The Federal Ministry is responsible for the annual allocation of funds and permanent posts for civil servants which have been made available by the Federal Minister of Finance within the federal budget (approx. 94% of university expenditure) and decides on degree programmes offered at universities. Moreover, it controls how the university uses vacant professorial posts. In agreement with the central committee of the national assembly, the Federal Ministry decides the faculty structure of a university. Within the scope of the statutes, the Federal

Ministry can exercise influence on the structure of the university. Higher education buildings are mainly provided by the Federal Ministry.

Within the scope of cross-university development planning the Federal Ministry compares the development plans of the individual universities, which require additional funding, and, within the budgetary limits, provides resources accordingly. Within the total annual allocations for staff, fixed assets and current expenditure the Federal Ministry can adjust an increased and reduced demand for resources between universities. Restrictions in terms of personnel exist for each university as the number of permanent posts and the available budget are limited.

The National University Board (a committee of eight experts) was established as an advisory body to the Federal Minister on questions of budget allocation to the individual universities, establishment of degree programmes and cross-university development planning. Together with the Federal Minister the National University Board is also responsible for initiating cross-university evaluations. The responsibility for evaluating the effectiveness and efficiency of university teaching and research as well as for measures relating to quality assurance and quality improvement has been transferred into the autonomy of universities (rector, dean of studies). An evaluation of measures with major impact is mandatory.

First experiences with cross-university evaluations were already gained at the beginning of the 90s by evaluating the fields of physics, electrical engineering and biochemistry in Austria and by participating in the EU pilot project for the evaluation of major fields of studies. In 1997/98, the advisory committee for the education of veterinarians commissioned the evaluation of the University of Veterinary Medicine in Vienna within the framework of the relevant EU directives. Selected institutes and clinics of the three medical faculties were evaluated on initiative of the Rectors' Conference. The primary objective was to test the Dutch evaluation model in the context of the Austrian university landscape.

The university organisation law of 1993 was implemented at the universities in close cooperation with the Federal Ministry of Science and to a large extent by integrating external experts for organisation development. The implementation process was gradually started between 1993 and 1996 and has now been completed at all twelve universities. The bigger universities frequently needed more than three years, the smaller universities only one and a half year for the implementation.

The organisation reform of the universities of art and music was laid down by law in 1998 by passing the respective Organisation Act which covered all six universities of art and music and by integrating the study law into that of universities. The initiative for this reform was taken by the universities of art and music. They have now been awarded the same degree of autonomy in budgeting, staff and study matters as well as regarding the internal structure as the universities of sciences. The extent of this equal status is addressed by the duty to develop and cultivate art and music as a parallel to research.

The universities are controlled by the Court of Auditors. Moreover, they are under the supervision of the rector and the Federal Minister who review legal conformity, fulfilment of duties and possible financing of their plans. Moreover, the Federal Minister has to present to the National Assembly a higher education report (latest edition in 1999) at intervals of three years in which the achievements and problems of universities, but also proposals for solutions have to be submitted. Databases allowing an effective supervision by the Federal Ministry are being set up and the available information about students' data is very satisfactory. The rectors and vice-rectors of the universities can rely in the fulfilment of their management tasks on a wide range of ADP applications specifically designed by their central administrations for the areas of staff, teaching, examinations and students.

The reform activities of the beginning of the 90s focused primarily on the university organisation. However, reforms were also considered necessary with regard to studies. The existing legal framework – consisting of the General Studies Act for Higher Education of 1966, ten specific Study Acts and a variety of decrees of the Federal Minister (rules for studies) and the curricular committees of universities (curricula) – proved to provide insufficient flexibility and an obstacle to meeting the new requirements. In 1991, a working group was established to examine to what extent university studies meet the requirements in terms of study contents and achievement of objectives. The report presented by the working group in 1994 was the basis for a new study law.

Universities Studies Act (1997)
The University Studies Act of 1997 is the result of extensive discussions between players in higher education policy, universities, interest groups and university administration. This law places all university studies on the same legal basis and simplifies the study law system. The 99 amendment to the study law provided the basis for the introduction of bachelor and master degrees in Austria in accordance with the two-cycle European architecture of higher education courses consisting of an undergraduate and a graduate phase. On the one hand comparable degrees within Europe should bring about advantages for the employability of university graduates inside and outside the European Union. On the other hand it is also expected that a shorter first cycle will contribute to reducing the periods of studies, which are too long in Austria.

The University Studies Act lays down, by exhaustive enumeration, the studies to be established at universities and obliges the Federal Minister to review and to newly establish the complete range of studies within a period of ten years. The study law also governs the procedural regulations, types of studies and admission to studies, a framework for student examinations and theses as well as academic degrees. It provides for two types of studies: degree programmes (degree programmes ending with a diploma, since 1999 also bachelor and master programmes, and doctoral programmes) and higher education courses. New are academic degrees for graduates of higher education courses (postgraduate further education) with an equivalent scope of lecture hours, i.e. the degrees Master of Advanced Studies (MAS) and Master of Business Administration (MBA). The stipulations for the study programmes are limited to the number of terms and a range of semester hours (one semester hour means one unit of instruction per week for the duration of one term). In order to reduce the duration of studies, an upper limit for the total number of semester hours, an orientation phase, tutorials for study entrants and an improvement of student counselling were laid down by law.

The curricular committees at universities are responsible for the detailed regulations. Their latitude for decision-making was considerably increased. The curricular committees determine the number of study stages and examination subjects, the examination system, the range of courses and possible areas of specialisation in the curricula. Also the harmonisation of study contents of a study programme with labour market requirements and the wishes of professional and social interest groups no longer takes place for all universities together, but in direct communication between a curricular committee and the representatives of the employment system and academic professions. The study law obliges the curricular committees to obtain proposals for changes of the study programme. In accordance with the hearings, a qualification profile of graduates has to be produced which serves as a basis for the establishment of curricula. Then, qualification profile and draft curriculum have to undergo an assessment procedure inside and outside the universities. The study law provides for a transitional phase until 2002 for the establishment of new curricula.

Bachelor and master programmes are introduced instead of degree programmes at the request of the curricular committee or the faculty committee or university collegium or the Federal

Minister, unless the respective curricular committee is opposed to. In the application for transition, the students' demand has to be estimated and the contents of the former degree programme have to be divided between the bachelor and the master programme. Furthermore, the required financial resources and the professional opportunities of graduates have to be described. To judge the labour market relevance of the new degrees, the Federal Ministry has to request the expert opinion of the Advisory Board for Economic and Social Affairs, in which the Social Partners are represented.

The introduction of new study programmes has to be laid down by law according to the political dimension of this duty, and the establishment of existing major fields of studies at a new location is carried out by the Federal Minister. A structured procedure is provided for in both cases and consists of a university application and the assessment by the Federal Ministry. The application consists of a qualification profile, a calculation of the required resources and an implementation plan. In the assessment the Federal Ministry evaluates the demand for the planned study programme, the labour market relevance, the efficiency of the planned studies, the innovative effects, the international development in this discipline, the funding and the existence of alternative non-university study offers (particularly *Fachhochschule* programmes).

To reflect the equal status of science and the arts, the study law of the universities of art and music was integrated into the University Studies Act. In addition to the general targets of the reform of studies, a new orientation of the studies in terms of content took place at the universities of art and music. The existing 50 artistic major fields of studies were combined into 19 major fields of studies with the aim to offer students more flexible study opportunities and a broader pre-professional education. The duration of studies has also been significantly reduced. The implementation of the study law at the universities of art and music is scheduled until 2003.

Universitätsgesetz (University Act; 2002)
In 1999 the Ministry revealed proposals for a second stage of reform — the move to full university legal capacity — in order to stimulate discussion in the universities themselves and the public arena. During the same year the Austrian Rectors' Conference and the Association of Chairpersons of Self-governing Authorities appointed a working party. The working party published a number of expert reports on important issues relating to arrangements for university autonomy, as well an overall framework for reform.
The new law passed parliament in July 2001. On 1 January 2004, Universities will become autonomous public institutions (*Institutionen des öffentlichen Rechts*). This includes also the Universities of Arts and Music. Till then, universities have to make a number of preparatory decisions. The new law has become effective on 1 October 2002. By the end of November of 2002, a temporary 'founding' body (*Gründungskonvent)* was to be installed, which had to prepare the election of the *Rektor*.

The law specifies the following bodies involved in institutional governance:

- the university council (*Universitätsrat*). This council will consist of an odd number of members (5-9). The federal government appoints and the *Senat* elects equal numbers of members, who appoint the final member of the council. The university council has farreaching authorities and tasks: negotiations with the governemnt regarding the performance contract and the budget, decisions regarding the institutional development and organisationplans; decision regading the tuition fees (within a legal range). It also elects the *Rektor* and it can dismiss him/her as well;
- the *Rektor*. The *Rektor* (and his or her Vice-rectors) are elected by the university council
- the *Senat*. The *Senat* has lost most of its powers. It has for most part an advisory role. Within the *Senat*, the power of professors has increased.

The institutions decide on how the governance on the department and institute level is organised.
The funding of the universities will be based on three-year performance contracts (*Leistungsverträge*). If parts of the contract are not met, funding will be adjusted.

The three medical faculties will be reorganised into three autonomous medical universities.

The new law has also consequences for the employment contracts. The university personnel will no longer be employed by the state but will be incorporated into an employment agreement with the university. Civil servants in the university will have an option whether or not to become university employees. These measures have as an objective to increase the flexibility and mobility and therewith the competitiveness of the university. Recruitment for all posts has to be public and for professors even international.

Universities will be allowed to take up loans and establish firms.

With the new law, government wants to strengthen competition between universities, through which the efficiency and quality of the universities has to be enhanced.

6 QUALITY ASSURANCE

6.1 Introduction

In Austria, a system of quality assurance in higher education has been implemented along with broad reforms of the organisation of universities and the regulation of studies.

6.1.1 Fachhochschulen sector

Within *Fachhochschulen* and *Fachhochschul* Studiengänge, quality assessment is linked to an accreditation policy. Under the Act on *Fachhochschul*-Studiengänge, which came into effect in 1993, *Fachhochschul Studiengänge* are run by corporate bodies of public or private law. The most important authority for the *Fachhochschulen* is the *Fachhochschulrat*. The 16 members are appointed by the Ministry. Four members are proposed by the Advisory Board on Economic and Social Policy, twelve are appointed in accordance with the Minister of Education. The *Fachhochschulrat* examines whether the proposed programmes fulfill the legal requirements and decides on their approval for a maximum of five years. During this period the programmes are assessed by the *Fachhochschulrat*. The approval of a programme can be renewed. Any decision of the *Fachhochschulrat* in this respect needs to be approved by the Minister of Science and Transport. A concept for an internal programme evaluation is one of the requirements of an approval for a *Fachhochschul*-Studiengang. An application for the renewal of the approva1 has to include a peer review report. The *Fachhochschulrat* – in cooperation with the Conference of *Fachhochschulen* – has set out a concept of evaluation, which basically consists of a collection of relevant data carried out by the *Fachhochschulrat* and an internal eva1uation of each *Fachhochschul-Studiengang*, followed by a peer review.

6.1.2 University sector

Previous to the reforms, there was no particular tradition of quality evaluation at Austrian universities and universities of arts. The University Organisation Act of 1993 has required Austrian universities for the first time to introduce systematic and comprehensive evaluation programmes which address the quality of teaching and instruction, in particular. This is urgently needed for the universities in order to meet the demands of the type of planning that result from substantially increased institutional autonomy. The new law entitles the Ministry to set up a more detailed framework for quality assessment, while universities are expected to develop their individual evaluation procedures within this framework autonomously. The relevant decree of the Minister was fiercely debated and finally released in the summer of 1997 and came into effect on 1 October 1997. It requires the assessment of research, curricula and the teaching performance of the individual lecturers as well as the collection of specific, relevant data. In addition, all structural decisions within the university system shall be subject to controlling procedures. Before the OOG 1993, systematic quality evaluation at Austrian universities was limited to the purely quantitative reports submitted every three years by the heads of university departments on the activities of the institutions and their individual members (the organisation and attendance of conferences, symposia, guest lecturing, publications, etc.). Individual evaluation was part of the initial procedure for appointing university professors or granting academics the status of university faculty. Earlier, the comprehensive evaluation of university units has focused primarily on research performance. In the sphere of research, evaluation in the course of the submission of project proposals by, for example, the Austrian Science Foundation, indisptilab1y has functioned as a means of

gauging the performance of universities. Rigorous quality control has always been a standard procedure for the award of grants for additional funding for specific projects. At some university faculties, output criteria have been used as a means of distributing resources internally.

Considerable progress needed to be made in the evaluation of teaching, especially in evaluation methodology. The distribution of evaluation forms and analysis of the quality of individual instructors and/or courses in the past primarily has been an arbitrary measure contingent upon the initiative or good-will of committed university faculty members. In many cases, the Austrian National Union of Students has assumed the responsibility for evaluation. Various Austrian newspapers and magazines also have evaluated universities; however, the methodological basis for these evaluations was exceptionally unsound. Under the University Organisation Act of 1993, the use of evaluation forms will be mandatory for each course at least once in two years. Some useful experience was gathered during the participation in the European Pilot Projects on Quality Assessment in Higher Education, launched by the EU Commission in 1995. As a follow-up to this exercise, the Austrian Rectors' Conference in 1997 set up a pilot project for the evaluation of medicine, covering not only teaching, but the overall performance of a given institute/university clinic.

The implementation of the accreditation procedure has been assigned to the Accreditation Council. The Accreditation Council, which has half of its members on proposal of the Rectors‘ Conference, is appointed by the federal government and is supervised by the Federal Minister. Before being awarded to the applicants, accreditations must be approved by the Federal Minister under the aspect of national interests of educational policy. Private universities are answerable to the Accreditation Council in matters relating to expenditure for rooms, current expenditure and personnel costs, quality assurance, students and graduates. The Accreditation Council has to submit a report of its activities to the National Assembly on an annual basis.

6.2 Procedures and Effects

6.2.1 The Fachhochschule sector

If an application fulfils all legal requirements and the *Fachhochschule* Council is convinced that the presented concept is able to guarantee the realisation of the educational mandate, and if the required financing evidence has been made available, then the accreditation procedure will be closed. The study programme will be accredited for a maximum of 5 years. After the accreditation by the *Fachhochschule* Council, the relevant people on the spot (management of the FH-institution, programme director, teachers, students, administrative personnel etc.) are responsible for the implementation of this concept and thus to guarantee the quality. A year before the expiration of the first approval phase, the study programme will be evaluated. Each application for continuation accreditation requires the submission of an evaluation report.

In addition to the accreditation as a form of ex-ante quality assurance and evaluation as a form of ex-post quality assurance, the following measures for quality assurance are provided for in the Austrian *Fachhochschule* sector during the approval period:

- Annual statistical surveys by the *Fachhochschule* Council;
- Students’ evaluation of teaching linked with pedagogical-didactic continuing education of teaching staff;
- Observation of final examinations by members of the *Fachhochschule* Council;

- Interim evaluations in form of interviews on request of the *Fachhochschule* Council;
- Development of internal quality management systems by the study programmes

Since 1997 about 40 FH-degree-programmes have been evaluated. Until this year the evaluation procedure has been focused on the programme approach. However, beginning from next year there will be basically an institutional evaluation. The institutional evaluation will focus on the analysis and assessment of the professional self-organisation of the FH-institutions. The examination of overall resources, organisation, processes and performance of the FH-institution should help to guarantee quality. The FH-institutions have to be seen as "learning organisations". From 2004 both the institutional and programme evaluation procedure will be carried out. The evaluation procedure is mainly based on the quality concept 'Fitness for Purpose', i.e. the quality of a FH-degree-programme is measured by the degree to which the prescribed and its own objectives have been fulfilled. To increase the quality of the educational offer is at the heart of evaluation. This is a qualitative evaluation procedure based on 'inherent' criteria to increase the quality, which consists of an internal self-evaluation by the FH-institution and the FH-degree-programme, an external evaluation by the Review Team as well as a statement of the FH-institution on the peer report. The basic intention of the follow-up procedure consists in implementing the results of the evaluation procedure in order to guarantee an increase of quality. Taking into account that the FH-Sector is relatively new and still in the process of being consolidated the *Fachhochschule* Council has refrained from publishing the results of the evaluations. This is in line with the current standard of public evaluation culture in Austria. However, this year the evaluation results will be published on our website. The content of the published reports will be a analysis of the strengths and weaknesses of the evaluated FH-degree programmes. The reports will be published by the FH-Council and the evaluated institutions will be asked for permission before the reports are published. The Austrian *Fachhochschule* sector is still being developed. In the years to come the national and international competition of higher education institutions for students and resources will increase substantially. The ability to operate successfully in this competitive situation requires educational institutions of the *Fachhochschule* to be established which have a 'critical size' and which are equipped with an appropriate quality in the fields of applied research and development, teaching and management. Against the background that the competitiveness of the educational institutions of the *Fachhochschule* will be determined by their ability to change and thus to use the potential of employees, human resources development will probably play a major role in the years to come.

6.2.2 The University sector

At the moment there is no standard system of evaluation established. As a consequence, there is no system of meta-evaluation either. However, the quality of the evaluation procedure and especially the quality of evaluation reports always has been a major topic. What has been done until now can be described as a sort of 'learning by doing' to identify examples of good practice, taking into account experiences made on an international scale. The Evaluation Decree of 1997 requires that each unit evaluated should have the right to comment on a draft evaluation report before it is officially released. These comments will always be part of the final report. The Evaluation Decree of 1997 only indicates that it is necessary to have a programme of improvement as a follow-up to an evaluation; a detailed procedure including an assessment of such a programme itself is not at hand at the moment for the university sector. There is neither a clear definition of 'quality' at hand, nor is there a statement by the government that is regarded to represent a standard performance. The quality of an institution can only be measured in relation to its specific missions and goals, its specific function within the framework it is a part of (courses of studies, department, university, international scientific community) and the resources available.

This does not mean that evaluation results cannot or should not be taken into account when structural decisions have to be made on a national level or at an individual university. On the contrary, the University Organisation Act of 1993 exp1icitly requires the use of evaluation results in any process of decision-making. The University Studies Act of 1997 provides for a special counseling process, if evaluation results show the need of changes in a specific programme. Most remarkably, the Evaluation Decree does not provide for a standard procedure if a programme or institution performs above or below average, but it does address the performance of the individual academic staff members. If the results of a course evaluation by the students for a lecturer turns out to be clearly negative two times in a row, the dean of studies is obliged to conduct an interview with the person concerned and to talk about measures of improvement. If an assessment of research proves that the performance of a faculty member in tenure position clearly has been 'below average' for five years, the rector shall convene with the head of department and this researcher to find out the reasons for the problem as well as to discuss a programme of improvement.

The University Organisation Act of 1993 requires that all decisions within the university sector shall be based on evaluation results where such results are available. Under the Evaluation Decree of 1997 this applies especially to decisions affecting the careers of the academic staff and to budget planning procedures. Under the University Organisation Act of 1993 and the Evaluation Decree of 1997, several reports must be made public. The dean has to publish the results of all course evaluations every two years, along with the results of additional evaluations he has ordered as well as the measures of improvement which have been taken. Results of course evaluations by students may not identify the names of individual lecturers without their consent. The rector has to analyse the annual reports of the individual departments and to report to the public on his findings at least every two years. The way of publication is up to internal regulation of the university .The results of all quality assessments ordered by the Ministry under the new university organisation have to be included in the Report on Higher Education along with the measures of improvement. The *Fachhochschulrat* reports annually to the Ministry. This report is public.

The responsibility for a follow-up to evaluation results depends on the issue concerned and may lie with the institution itself, with the university management or with the government. Under the Evaluation Decree, the Ministry, the Board of Universities, the rector and the dean of studies have the right to initiate specific types of evaluations. Within a university, the rector has to make sure that those responsible for the follow-up report in good time on the measures they have taken. In the past, in most cases suggestions were addressed to the Ministry .Now, bodies within the universities gained much more competence and responsibility according to the greater autonomy granted by the University Organisation Act of 1993.

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