Higher education in France

Country report

International Higher Education Monitor

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The CHEPS International Higher Education Monitor

The CHEPS International Higher Education Monitor (IHEM) is an ongoing research project, commissioned by the Dutch Ministry of Education, Culture and Science. The project aims to provide higher education policy makers with relevant and up-to-date information on national higher education systems and policy changes. This information is presented through in-depth country reports, comparative thematic reports, annual update reports, statistical bulletins and a statistical data-base. The core countries for which this information is collected and presented include Australia, Austria, Finland, Flanders (Belgium), 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 supra-national initiatives deployed at the European level with respect to higher education (e.g. the Leonardo and Socrates programs) necessitate such an orientation. Policy makers therefore need to have access to adequate information on higher education structures, trends and issues in Europe as well as other 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 often do not provide much in the way of usable information. What is lacking is a frame of reference to properly interpret the data.

Such a framework is offered by the CHEPS International 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 of 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.

A wide scope of sources are used for these country reports including national statistics, (inter)national journals and magazines, national policy documents, research papers, and international documents and databases.

To keep track of the latest (policy) changes in higher education annual update reports are published.
These publications and other information on the IHEM can be found on:

http://www.utwente.nl/cheps/higher_education_monitor

1. The education infrastructure

1.1 Pathway to higher education

1.1.1 Pre-school education

Pre-school education is offered at 'nursery schools' (*écoles maternelles*) or in pre-school classes at primary schools (*écoles élémentaire*). At these institutions, schooling is provided for all children from the age of two until compulsory school age.

1.1.2 Primary education

The institutions in which compulsory primary education is carried out are called 'primary' or 'elementary' schools. There are no differences in age or level of pupils in these institutions, which take all children from the age of six to their entrance into lower secondary school. Primary school covers the cycle of fundamental learning which lasts for the first two years of elementary school, and the consolidation cycle which covers the last three years of primary school. There is no examination at the end of primary school. All pupils go to the sixth class (lower secondary education) as of right, except if the teacher concerned objects.

1.1.3 Special education

For children with special needs, due to physical or mental handicaps or social-pedagogical reasons, special education is offered in special classes. These classes are located either in ordinary elementary schools or in special schools level.

1.1.4 Secondary education

The Haby Law (July 11 1975) set up the 'single college' for all children arriving from primary school. Today this still constitutes the basic political and legal operational framework for lower secondary education in France.
Secondary education lasts for 7 years, from the sixth to the terminal class (first to upper sixth forms). There are two cycles: lower secondary education (4 years) and upper secondary education (3 or 4 years).

1.1.5 Lower secondary education

Lower secondary educational institutions are known as *collèges*. The *collège* is 'the single establishment of education for all pupils who have completed their primary schooling' in which they receive secondary education immediately following on from their primary education.
All children having completed their elementary education are admitted as of right into the *collège* at the latest in their twelfth year. Those of them not having acquired the skills of primary education may be admitted to a specialised teaching department.
Education in the *collège* lasts for four years, corresponding to sixth, fifth, fourth and third classes. The decree of May 29 1996 laid down a new educational organisation in the *collège*, based on three cycles. Pursuant to this new organisation, the sixth class is the observation and adaptation cycle of secondary education; the fifth and fourth classes become the consolidation cycle and the third class becomes the orientation cycle.

As of the fourth class, pupils may choose between two branches of study: general education or vocational/technical (*technologique*) education. Both branches lead to the level corresponding to the end of third class and theoretically offer the same orientation opportunities. They differ in the support and teaching methods. The vocational/technical branch is for pupils attracted by a less abstract education, based on a large amount of practical teaching and general education applying to real technical activities studied by the pupils.
The third class is concluded by a national diploma, the *Brevet,* created in 1987. This is awarded on the basis of marks obtained in an examination and during continuous assessment in fourth and third classes.

1.1.6 Upper secondary education

Upper secondary education is divided into two distinct branches: general and technological education, and vocational education.

Upper secondary vocational education
The purpose of vocational education is to give young people from *Collège* training for vocational qualifications. There are three main streams in upper secondary vocational education. The first stream is the preparation for the vocational aptitude certificate (*certificat d'aptitude professionelle*: CAP) which takes two or three years. The CAP gives practical skill in particular areas, allowing immediate professional integration. The second stream is the two years course leading to the vocational diploma (*brevet d'études professionelles*: BEP). The BEP gives skills in the more demanding technological areas in which professional integration requires higher qualifications. The third stream is the four-year preparation for the vocational *Baccalauréat* (*brevet de technicien:* BT).
These programmes are offered at vocational *Lycées (lycées professionnels; LP).* Classes preparing pupils for a CAP and a BEP are open to all pupils after the general, technological and more particularly integration third classes (*classes de 3ème d'insertion).* Holders of a BEP or a CAP, or candidates having completed a full first class, are entitled to study for the vocational *Baccalauréat* (BT).
In 2005-2006, 720,200 pupils were enrolled in these schools.

After obtaining the technical *Baccalauréat,* pupils may either start work and occupy jobs corresponding to their speciality or continue their studies, mainly in departments for higher technicians (STS) located at the Lycée , or in a IUT, a short cycle educational institution, related to a university.

All vocational diplomas may be studied either at a vocational *Lycée* (LP) or in an apprenticeship-scheme (*apprentissage*) in a centre for training apprentices (CFA, in which around 400,000 pupils participated). While basic training under the aegis of schools remains the main purpose of vocational *Lycées,* the Ministry of Education wishes its schools to be more welcoming to apprenticeship.

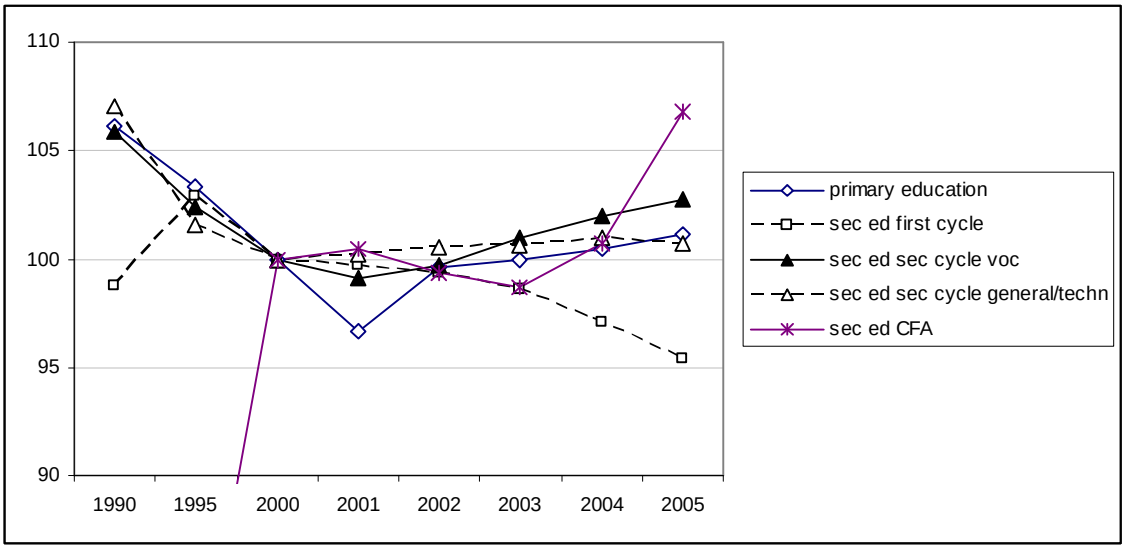
General and technological education

General and technological education lasts for three years (second, first and terminal classes) and leads to the general *Baccalauréat* or the technological *Baccalauréat*.
The programmes are offered at *Lycées.* Admission to the *Lycée* for general and technological education for a pupil coming from the third class is dictated by the advice of the class council, the family's wishes regarding options and specialities, and the decision taken after the proposal by a commission presided over by the local inspector. It takes account of the career decision and the number of available places in the geographical catchment area.
The second class (the first year of upper secondary education) is a year in which pupils have to determine in what branch and subjects they will continue their study. They may choose between the general classes and the technological classes respectively leading to the general or to the technological *Baccalauréat* after two years of study (first class and terminal class). Each branch divides up into various series, which constitute the basis for the specialisation. In the general branch, there are three series: literature (L), economic and social sciences (ES), and science (S). In the technological branch there are two main series: tertiary science and technology (STT) and industrial science and technology (STI) and a collection of smaller series including laboratory science (STL), medical and social work (SMS), hotel and catering, applied arts, and techniques of music and dance (TMD).
In 2005-2006 in total 1,512,800 pupils were enrolled in second cycle classes.

1.1.7 Changes in enrolment

Beyond the lower secondary level, education is no more compulsory. The demographic developments therefore are no longer the sole causes of changes in the level of enrolment, regarding upper secondary education and beyond. The rate of participation may not be taken as constant any more.
The decline in enrolment that characterised the 1980s end 1990s has come to an end: enrolment levels have stabilised and started to grow again.

Figure 1-1: Change in enrolment in primary and secondary education, France metro+DOM, 2000=100



Source: (Ministère de l'éducation nationale 2006, p.19)

1.1.8 The law on the future of the school

The 2005 law on the future of the school (**loi n° 2005-380 du 23 avril 2005 d'orientation et de programme pour l'avenir de l'École**) set the policy goals regarding the primary and secondary school education: completion of a school programmes for all pupils; address the situation regarding the learning of foreign languages; better guarantee equal chances and a better transition to the labour market.

1.2 The higher education system

1.2.1 History

Paris hosted one of the first medieval universities in Europe. In the sixteenth century, the number of universities grew. With this growth, the changing role of the church and the worldly leaders, the role of the university changed. The autonomy of the universities was reduced by strong regulations of the sovereigns. The universal production and exchange of knowledge through the mobility of students and professors was halted by the enhanced political and religious frontiers. Alternative models of higher education were developed in this modern period (sixteenth-eighteenth century). The main alternative model was the specialised schools or *Grandes écoles* that were created in the 18th century to train and educate officers and engineers to high standards for civil service. In the 19th century, the number of *Grandes Écoles* grew and diversified into the fields of industry and commerce. Except at the *École normale supérieure*, a strict separation between science and the arts was observed.

The higher education landscape was turned upside down when the universities of the *Ancient Régime* were abolished after the French revolution. In 1808, Napoleon did not restore them but created under the name of *université* a system for educating teachers. He kept the pre-*revolution Grandes Établissements* (like *le Collège de France*), some institutions created during the revolution (like the *Conservatoire des arts et métiers*) and special schools (like the *école polytechnique* and the *école normale*). Research was concentrated in the *Grandes Établissements*. The strong centralised control over the higher education institutions was seen as necessary to stabilise the country, which was in the after-revolutionary turmoil. In the 1870s, French higher education underwent another major change. The defeat in the war with Germany in 1871 initiated a reform process. From 1885 universities were created as places for giving specific teaching to students. Classes were defined according to what teaching diplomas were taught. However, the new type of university, created in 1896 was not a real university. These 15 universities were collections of five faculties (the same in all universities) with a university council with no power and a president appointed by the central government. These universities struggled with their role in higher education. The *Grandes écoles* already provided the training of the elites in an efficient and prestigious way. Universities were not only in competition with these institutions but also with the already existing renowned research institutes. This 'struggle' continued throughout the years and intensified in the 1960s when the massification of higher education started. The need to reform the higher educational system was re-formulated by the student movement of 1968 and resulted in Edgar Faure's framework law of 1968, which remains the basis of university organisation today (Charle and Verger 1994; Charle 1997; Gaillard 1998)

After World War II there was a huge demand for skilled technicians and professionals. The creation of short technical and professional courses in the 1950s and 1960s was one answer to this. In the 1950s the STS were created as special classes at the *Lycées*. In 1966, the IUT were created as institutes attached to the universities.

1.2.2 Structure

The French higher education system has grown to a diverse and complex system. To describe this system many perspectives and classifications may be used. In this report, the structure of the higher education system will be described from two perspectives. In the first perspective (see section 1.2.2.1) the types of institutions providing higher education will be described. The second perspective (see section 1.2.2.2) uses the types of programmes offered by these institutions to picture the system.

1.2.2.1 Types of institution

If we use a legal approach, we can distinguish six types of providers of higher education.

a. Public institutions of the second degree

Many of the over 1000 public *Lycées*, offer higher education programmes in special classes or sections. Most lycees (87%) have a *Section* de *techniciens Supérieurs* (STS) and around one fifth have *Classe Préparatoire aux Grandes Écoles* (CPGE). As these classes are part of the secondary education system, they are funded and governed in a different way than public higher education institutions.

b. **Public universities and attached institutes**

In 2005, there were 81 universities. They offer scientific, cultural and professional education and are pluri-disciplinary. Each is composed of units for education and research (*Unité de Formation et Recherche,* UFR*)* for each subject, with common objectives. They may also regroup institutes and schools created by decree, and research departments, laboratories and centres created by decision of the university governing board.

Public universities are *Établissements publics à caractère scientifique, culturel et professional* (EPCSP).

Public universities host three types of university institutes. The oldest type are the university institutes of technology (*Institut universitaire de technologie,* **IUT**), the first ones created in 1966. In 2005, 114 of these IUTs existed.

The teacher training institutes (*Institut universitaire de formation des maîtres,* **IUFM**) were created in 1989 to train the teachers needed to face the consequences of the massification of French secondary education. They replaced a number of existing types of institutes, all on teacher training. Although the 30 IUFMs proved to be successful in attracting students, there were also problems regarding the quality of the content of the curricula and the relation with the schools. In the law on the future of the school (loi pour l'avenir de l'école) it was foreseen that the IUFM was to integrate into the universities, becoming an 'internal school'. Experiments started in January 2007 and by 2008, the integration of all IUFMs should take place.

There are slightly over 120 professional university institutes (*Institut universitaire professionnalisé*, **IUP**), a type of institution created in 1991. These institutes were created within universities to serve two main purposes:

- to develop professional oriented programs within the universities
- to increase the number of graduates prepared to hold staff positions in the corporate world.

In addition to the public universities and attached institutes there are other EPCSCPs:

- 2 *instituts national polytechnique*, each of which groups a number of former engineering schools;
- 14 institutes and schools outside university (mainly science and engineering schools);
- 18 *grand etablissements*; a divers group of very prestigious and old institutes like the *Collège de France* and a number of art schools;
- 4 *école normale supérieure*; an *École normale supérieure* prepares students who are geared towards fundamental or applied scientific research, towards teaching at university level and preparatory programs for entrance examinations to the *Grandes Écoles* and, more generally speaking, students who seek to join Central and Territorial Government Administrations, their public establishments and their businesses.

c. Other public institutions for higher education *(Établissements publics à caractère administrative (EPA)*

This category of higher education institutions consists of

- 17 engineering schools, related to public universities;
- 8 institut d'études politique, related to public universities ;
- 10 other EPA institutes, comprising four more engineering schools.

d. Private institutions with predominantly public funding of the second degree

This category comprises private *Lycées*, offering higher education programmes in special classes or sections like the STS and CPGE. Of all private *Lycées*, around 75% have a STS and around 8% have a CPGE.

e. Private institutions for higher education with predominantly public funding (private Grandes Écoles)

These institutions include engineering schools, *Grandes écoles* for commerce and management (45), and Catholic Institutes (5). The latter are private institutions recognised by the Ministry for Higher Education, which include university and higher education.

f. Other higher education institutions

In addition to the institutions mentioned above there is a large number of institutions that have a different legal basis. The largest category are the teaching centers within the private sector (568 schools for para-medical professions and for social workers). The other categories are: institutions managed by *organismes consulaire* (mainly *Grandes Écoles* for commerce); teaching centers within public administration (*Grandes Écoles* in the realm of the ministry of defence (or other ministries)), and teaching centers within industry (internal industry programmes (postal and telecom, banking)).

Private higher education institutions

In order to become part of the *formal* education system (next to the public higher education institutions), private higher education institutions may ask for state recognition. The criteria used for recognition refer to:

- aims and length of the diploma, entrance requirements, timetables and curricula, teaching methods, and composition and quality of the teaching staff;

- material facilities such as premises and equipment;
- legal status, whether an association or a company;
- financial position: where resources come from and how they are spent.

Recognition is granted by decree from the Minister for Higher Education and Research. It allows those institutions obtaining it to receive State subsidies or pupils to receive State grants. Recognised institutions may be subjected to inspections. The appointment of the director and teaching staff is subject to agreement by the *académie recteur*. Private higher education institutions may also reach an agreement with public universities which enables their students to sit examination and get a national degree from that public university. This procedure is mainly used by denominational higher education institutions.
Those private higher education institutions that are not state recognised may request homologation for titles they confer. This gives a label of State approval to private higher education institutions that are seen to play a useful role in assisting State education and offer high quality teaching. The homologation of a title does not give access to an equivalence with the state diplomas. Although the number of students in these programmes is very limited, it is a procedure that is growing, especially in initial higher education programmes. The main use of homologation is made for publicity or better marketing reasons (Lebeau and Jallade 1997).

Among the private higher education institutions that do not want a relation with the state, three categories of institutions can be distinguished: higher education institutions that confer institutional certificates; higher education institutions that prepare for diplomas created and conferred by non-governmental foreign bodies; and higher education institutions that confer foreign diplomas. There are no official statistics available on this sector. Most of these higher education institutions are for profit enterprises, quite small in terms of enrolment, mainly in business management or commercial disciplines, with a strong emphasis on the international component.

g. Distance Learning

Distance learning is traditionally carried out by the National Centre for Distance Learning (CNED), a State public institution governed by the Ministry of Education, Higher Education, Research and Vocational Integration. Created in 1939, the CNED received in 2005 around 300,000 trainees of which almost 150,000 were enrolled in a higher education level programme. The distance learning tools used include written media, oral audio tapes and video cassettes. On-line data processing tools are also used to access reference data banks, take tests and dialogue with instructors (for some courses). In addition to this distance learning, the CNED also proposes regroupings and tutorials of variable lengths. Certain French universities also provide distance education through remote university education centres (CTU). These centres propose courses in various forms: written documents, cassettes, television, radio, etc. An administrative enrolment at the university is a prior requirement[1].

Apprenticeship schemes

[1] http://www.cned.fr/institution/presentation/chiffres_cles.htm

In apprenticeship schemes participating students study for a diploma while working at the same time. It is designed for students between 16 and 26 years of age and use two types of work contracts: the qualification contract and the apprenticeship contract.
In the qualification contract, training forms at least one quarter of the term of the contract, which may be concluded for a renewable period of six to twenty four months. This formula is gaining ground, particularly in large companies.
The apprenticeship contract is the most common for the preparation for higher education diplomas.
The theoretical training is organised in schools for apprentices (*centres de formation d'apprentis*; CFA). For the STS-programmes, these schools are created on the basis of an agreement between regions and other organisations like the chamber of commerce, municipalities, private companies, and public education institutions. Regarding the other types of programmes, there are three main types of CFA. The two major ones are the university as sole organising institution, and a co-operation between higher education institutions and professional organisations or companies.

Most diplomas awarded in apprenticeship schemes are the two-year technical programmes of the STS. Since the apprenticeship schemes were opened in higher level programmes (bacc + 3 and beyond) in 1991, apprenticeship scheme have gained popularity. Among the level II (bacc+3 and 4) and level I programmes (bacc+5), the engineering diplomas are the largest category. The rise in the Licence programmes is remarkable. In the rest, a wide variety of bacc+3 diplomas are awarded.

Table 1-1: Enrolment in apprenticeship scheme in higher education, by level

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Level I	1948	2441	3250	4436	5397	6185	6852	7514	8378	9407
Dipl ingenieur	*1734*	*2004*	*277*	*3539*	*4171*	*4644*	*5086*	*5514*	*6218*	*6631*
Level II	2829	3916	5768	7143	7780	9448	9568	11243	12674	14124
Licence	*56*	*41*	*184*	*312*	*411*	*692*	*1298*	*2203*	*3004*	*3945*
maitrise	*577*	*590*	*1033*	*1334*	*1572*	*1837*	*2031*	*2034*	*2068*	*697*
Level III	15273	19952	25603	29581	32507	35553	37234	37751	38217	39560
BTS	*12539*	*16770*	*20580*	*23415*	*25497*	*27800*	*28982*	*29639*	*30245*	*31435*
DUT	*2067*	*1917*	*2889*	*3357*	*3702*	*4285*	*4490*	*4397*	*4325*	*4188*
Total higher education	**20050**	**26309**	**34621**	**41160**	**45684**	**51186**	**53654**	**56508**	**59269**	**63091**

Source: (Ministère de l'éducation nationale 2006, p.165)

1.2.2.2 Programmes

Since the academic year 2006-2007 all universities and *Grands établissements* use the new LMD-structure. This structure replaces the previous three cycles structure. However, the old degrees are awarded, that is why we first give an overview of the programmes that were offered throughout the French higher education system, prior to 2006.

The previous programme structure

The branches of study in higher education are very diversified. They may be divided into short and long courses, and are characterised by the nature of the diplomas studied for. The programmes described all refer to national diplomas. In addition to these national programmes, higher education institutions may provide programmes leading to university diplomas. These programmes are not state-recognised.

a) Short courses

The STS offer two-year programmes leading to the higher technical diploma or BTS. The programmes, a wide number of specialisation within the broad sectors of industry and services, aim at very precise functions. In some STS, students may continue their study in a one-year programme leading to the national diploma in specialised technology (DNTS), created in 1994. This programme is based on the principle of alternating training between industry and university and is a specific response to demand in professional sectors. Enrolment in these programmes is relatively small and stable.

The courses at the IUT lead to the university diploma of technology (DUT). This preparation takes two years. Furthermore, IUTs offer DUT-holders courses leading to the national diploma in specialised technology (DNTS). This is delivered after a one-year programme. This programme was created to improve the transition of DUT holders into the labour market. The holder of a DUT may enter the professional live or may continue his study at a university or another school.

University students may also choose to study for a diploma of scientific and technical university studies (*Diplôme d'études universitaires en sciences et techniques,* DEUST), which is a two year course leading directly to professional life.

b) Long courses

Universities and other higher education institutions offer also long courses of study.

Long university studies were organised in three successive cycles with national diplomas at the end of each cycle.

The **first cycle** programmes was designed for basic education and orientation. The two years programmes were finalised by a *Diplôme d'études universitaires générales,* DEUG. The DEUG was seen as the preparatory diploma for the second cycle. It included pluridisciplinary teaching, and a period of career orientation, the length of which varied according to the organisation chosen by the university.

There were two types of **second cycle** programmes: the general programmes and the professional programmes. The general programmes were the one year programme leading to a *Licence* (DEUG+1) and the one year programme following the *Licence*, leading to a *maîtrise* (Licence + 1). Both degrees were considered to be final qualifications, with which the holder may enter the labour market.
The professional programmes offered in the second cycle were:

- the two years specialised professional *maîtrise* programmes. These programmes lead to a *Maîtrise de science et techniques* (MST; science and technology), a *Maîtrise de sciences de gestion* (MSG; management sciences) or a *Maîtrise de méthodes informatiques appliquées à la gestion* (MIAGE; management informatics)
- the one-year programme leading to a *Licence professionelle*. This professional programme was created in 1999, partly as a response to the Bologna declaration.
- the three years programme called *Magistère*, created in 1985. These programmes offered professional training to a restricted number of students.

The **third cycle** programmes were also divided into academic and professional. The academic programmes were the DEA and the *Doctorat*. The one-year programme leading to the *Diplôme d'études approfondies* (DEA) was seen as a preparation for the doctorat study, which usually took three to four years. The highest academic degree was (and still is) the *habilitation à diriger des recherches (*HDR*)*. This degree, which is awarded upon the completion of original scientific work of high level and the proven ability to lead young researchers, is a prerequisite to become a university professor. Doctoral courses were entirely remodelled during the campaigns for the accreditation of DEAs. Doctoral education was and is organised in more than 300 '*écoles doctorales'*.
The professional third degree programmes were the one year highly specialised professional programme leading to the *Diplôme d'études supérieures specialisées* (DESS) and the *Diplôme de recherche technologique* (DRT). The latter was open for engineers and IUP graduates and provided training in innovative technology through research in industry or services.
Since 1999 the holders of the DESS, DEA and engineer title are allowed to use also the grade of *Mastaire*. This grade was created as a response to the Bologna declaration.

In the area of health education, the total length of courses, also organised in three cycles, varies according to subject: an eight year course for the State diploma of doctor in general medicine, a ten or eleven year course (depending on the speciality) for the diploma of doctor in specialised medicine, a six year course for the diploma of doctor in dental surgery (this was a five year course until 1994), a six year course for the diploma in pharmacy, and a nine or ten years for the diploma in specialised pharmacy.

IUPs offered three-year programs beginning at the Bac + 1 level (the first year of the DEUG or DUT/BTS), leading directly to employment in the industrial and service sectors.
These programs included:

- a scientific and technical basic education
- a complementary education preparing students for insertion within companies
- work experience in relevant areas.

Basic training included at least 1600 hours and at most 2000 hours of courses.

Complementary training included teaching in at least one foreign language, communication techniques, and management techniques (law, economic and financial aspects).
Courses were partly taught by company staff.
Work experience lasted at least 19 weeks. It was either spread over the entire program or organised within the last year.
A small number of graduates of the IUP programs continue their education with a DRT (technical research diploma), equivalent to 6 years of study after the baccalaureate.
The following degrees were provided by IUPs:

- DEUG (Diploma of general university studies), after the first study year
- *Licence*, after the second study year
- *Maîtrise* after the last year.

Upon completion of the entire program of study, the title of '*ingénieur-maître'* was granted to students, by the dean after exam results were accepted by a special jury.

The IUFM recruit their students at the bac+3 level. The first year prepares for an exam (*concours d'enseignant*) and is rather academic. The people passing that exam may continue into the second year, which is much more oriented at the teaching practice, including a substantial period of working in classrooms.

Programmes offered by the *Grandes écoles* are very varied. The main ones are:

- scientific studies in the scientific *Grandes écoles*, which deliver the title of engineer. This is subject to approval of the commission for titles in the Ministry of higher Education (CTI). Studies last from three to five years depending on the school.
- business studies in the *Grandes écoles* for business studies.
- architecture studies in schools of architecture, offering courses organised in two cycles with national diplomas: the basic two-year orientation and training cycle leading to the foundation diploma of architectural studies, delivered jointly by the Ministry of Infrastructure, Planning and Regional Management and the Ministry of Higher Education and Research; and the cycle leading to the State diploma of architecture (DPLG) which lasts three years (Bacc. + 4). A further year of specialisation leads to a certificate in further architectural studies (CEAA).

The *Mastères Spécialisés* (MS) are no diplomas but are 'labels' awarded by the *Conférence des Grandes Écoles* for special post-diplôme programmes at the engineering schools or the business schools. The MS last at least one year and comprise both theoretical study as well as a personal study or research in industry, which is finalised by a *thèse professionelle.*

Since 1990, new engineering programmes (*Nouvelle formations d'ingénieurs*, NFI) were created through partnerships with companies in order to train more technologically oriented engineers. These programmes had shorter and lighter courses and much greater periods within companies as the regular programmes.

A large number of schools under the responsibility of the Ministry of Social Affairs, offer paramedical courses in orthophonics, orthoptics, audioprosthesis, midwifery and social work. These programmes differ in length, ranging from 2 to 5 years.

The LMD structure

Since the academic year 2006-2007, all programmes at the universities and the *grandes établissements* are organised according to the new LMD-structure. The programmes at the other higher education institutions are still organised along the lines described above. The LMD-structure corresponds to the three cycle structure that the countries participating in the Bologna process agreed upon. The first cycle is concluded with a Licence (which is also called Licence LMD to distinguish it from the already existing Licence), the second cycle with a Master and the third cycle with a doctorate.

The building blocks of the new programmes are the semester. Completion of a semester is equal to 30 ECTS.

The Licence

The licence is the French version of the bachelor. This new degree programme comprises six semesters and replaces the old two year DEUG programme and the one-year Licence programme.

The two-year vocational programmes (BTS, DUT and DEUST) as well as the Licence professionelle remain. Students in STS, *Classes Préparatoires* and IUT may request to integrate their achievements into the preparation for the new licence.

As mentioned, the one-year *Licence professionnelle* programme is continued. Holders of the BTS, DUT or DEUST, as well as students who have completed the first four semesters of the new licence may apply for access to this programme.

The Master

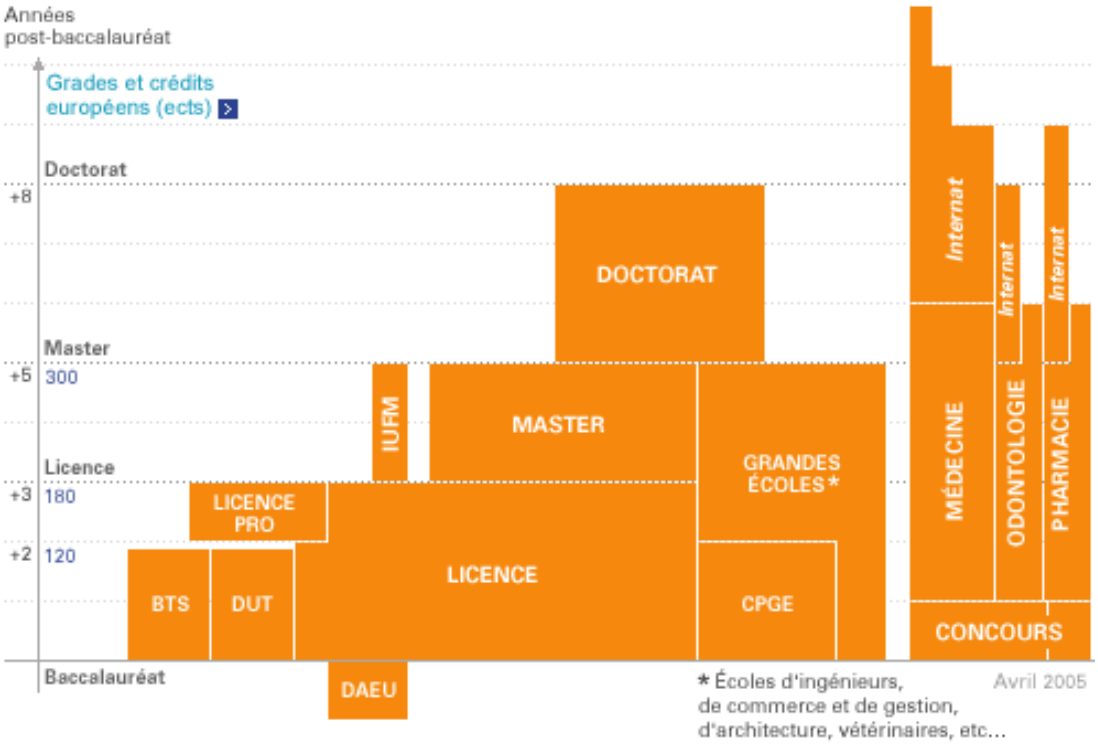
Holders of a new licence or a *licence professionnelle* may apply for a *Master recherche* (a research master) or a *master professionnel* (a professional master). The research master replaces the existing *maîtrise* and the first year of the DEA, whereas the professional master replaces the existing *maîtrise* and the first year of the DESS. Both master programmes take four semesters.

Most *grandes écoles* will deliver diplomas that will relabelled as equivalent to a master's level.

The Doctorat

Holders of a research master degree may apply for access to a *doctorat* programme (doctorate). Holders of a professional master have to satisfy special conditions to be eligible for access. The *doctorat* comprises six semesters.

Figure 1-2: Overview of the higher education system (new structure)



Concerns and adaptations during the transition

The old degrees may still be awarded[2]. Students who have acquired 120 ECTS may request that a DEUG is given, students who have completed the first two semesters of the master programme (and therefore have at least 240 credits) may ask the university to issue a maîtrise degree.

A number of existing degrees (the MST, the MSG, the DEUG and the licence and *maîtrise* issued by the IUPs) are planned to be integrated in the LMD structure (Ministère de l'Éducation Nationale 2007).

Whether this two track policy contributes to the transparency of the French higher education system is questionable.

[2] These old degrees are no real degrees but intermediate degrees. They never had the status of a official degree, although they were recognised by the state as national diploma's.

The new programmes are no 'national programmes' anymore. Strictly speaking they are university degrees. This loss of national status is seen by many as a potential threat to the egalitarian nature of higher education. Inequalities between universities and students regarding entrance requirements, tuition fees and new selection procedures, as well as competition between programmes are considered to be undesirable side effects by many. However, the proposed law on the autonomy of universities will change the programmes into national programmes and deals with the tuition fees and selection on entrance (see below).
A final point of concern regarding the introduction of the LMD structure refers to the tight budgets (if any) available for reorganising the programmes.

Many higher education institutions, other than universities, had to adapt to the new situation. At the *Instituts d'Etudes Politiques* the 4 year programmes were changed to five year programmes to align wih the new master grade. The *écoles d'architectures* downgraded their degrees from 6 to 5 years programmes. Some *instituts universitaires professionnels* (IUP) have changed their programmes, recruiting students who have successfuly completed the first two years (instead of after one year) and their diplomas were changed into a professional master, while others disappeared after the reform. Engineering schools (*grandes écoles*) normally worked with a 2 plus 3 years structure (the two years in the CPGE), but they have to reorganize, which is an obstacle to the swift integration of these schools into the LMD structure.

1.2.3 Entrance and selection

To enrol in university candidates must possess a *Baccalauréat* or the equivalent, or have passed the examination for entrance to the first year of university (DAEU). The DAEU is a national diploma of higher education created in 1994, which replaces the special entrance examination for university (ESEU). The DAEU is delivered by universities and is for candidates whose studies have been interrupted for at least two years. The diploma is delivered after a one-year course and a written and oral examination, which evaluates general knowledge and culture and also candidates' methods and know-how as needed in future higher education. The DAEU gives the same rights to university as the *Baccalauréat*. In 2004 13100 were enrolled in DAEU programmes and around one third of them got the diploma. Around one third of the new DAEU holders actually enter higher ueducation immediately the year after getting the DAEU. (Ministère de l'Éducation National Enseignement Supérieur et Recherche 2006).
Except for in pharmacy and medical studies, there is no selection upon entrance into university.

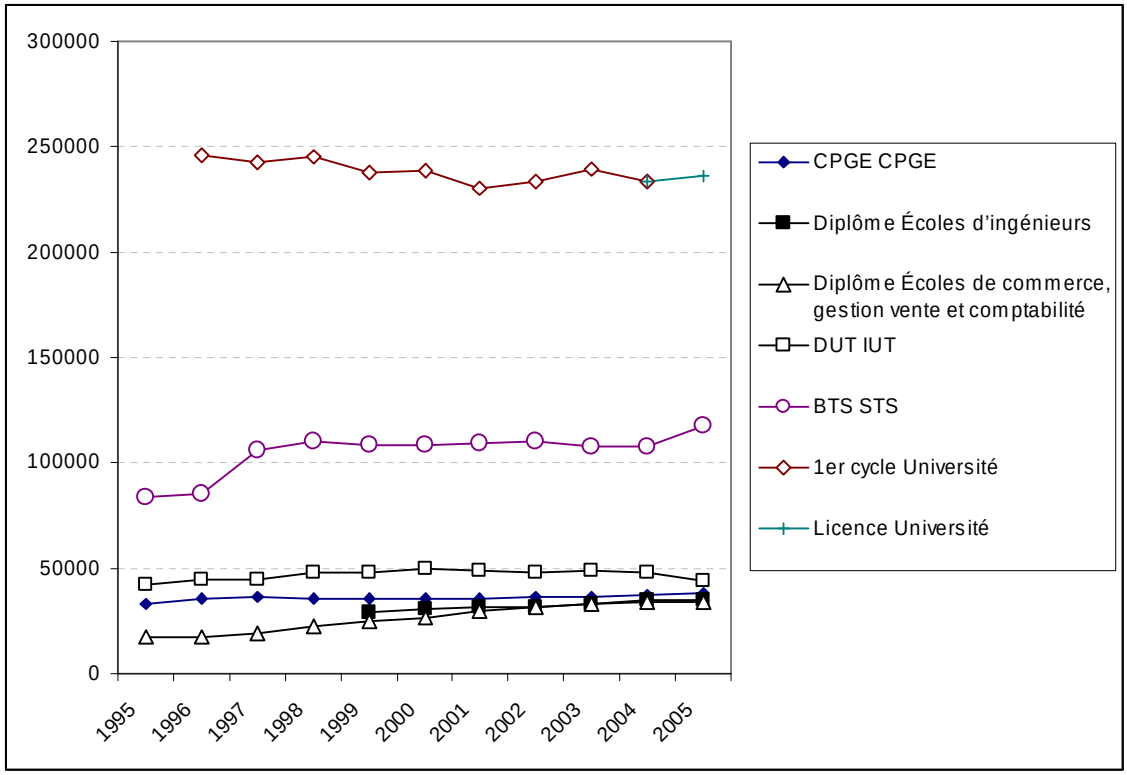
For the institutes attached to universities, such as IUT and IUFMs, students are selected on their school records and on interview if they have their *Baccalauréat*.
The State or private *Grandes écoles* or institutes recruit there students through a highly competitive entrance examination. The common way to prepare for this examination is through the preparatory courses at the CPGE for which selection requirements are also of very high standard. Some *Grandes Ecoles* offer these preparatory programmes themselves (in *preparations integrees*). DEUG, DUT or BTS may also sit the entrance exams.

Access to a MS programme is open to holders of a diploma of an engineering or business school or a university degree of the bac+5 level. Holders of inferior degrees are eligible also if they have a substantial professional experience. For the latter category, 20% of the places are reserved.

For all programmes leading to a national degree, the professional experience someone has may be taken into account when granting access or awarding a diploma. This *Validation des Acquis Professionels* has a legal basis in the law of 20 July 1992 and two decrees (Ministère de l'Éducation Nationale 2000) (see also page 33).

The statistics on number of new entrants do not cover the whole range of higher education. In the figure below the statistics for the major types of public institutions are presented. What is remarkable is the gradual but small decrease in inflow in the universities and the steady, yet modest growth of the inflow in the *Grandes Écoles*. Inflow in the short programmes (STS and IUT) has been rather stable.

Figure 1-3: New entrants in a number of public higher education institutions



Source: IHEM 2007

1.2.4 Enrolment

Overall, there has been a decline in enrolment in the 1990s, followed by a period in which the decline levelled out and enrolment started to grow again, be it at a very moderate pace.

Universities are the largest sector, although they lost a considerable 'marketshare' throughout the last decade. Most of that share went to the *Grandes Écoles*, especially to the trade and business schools.

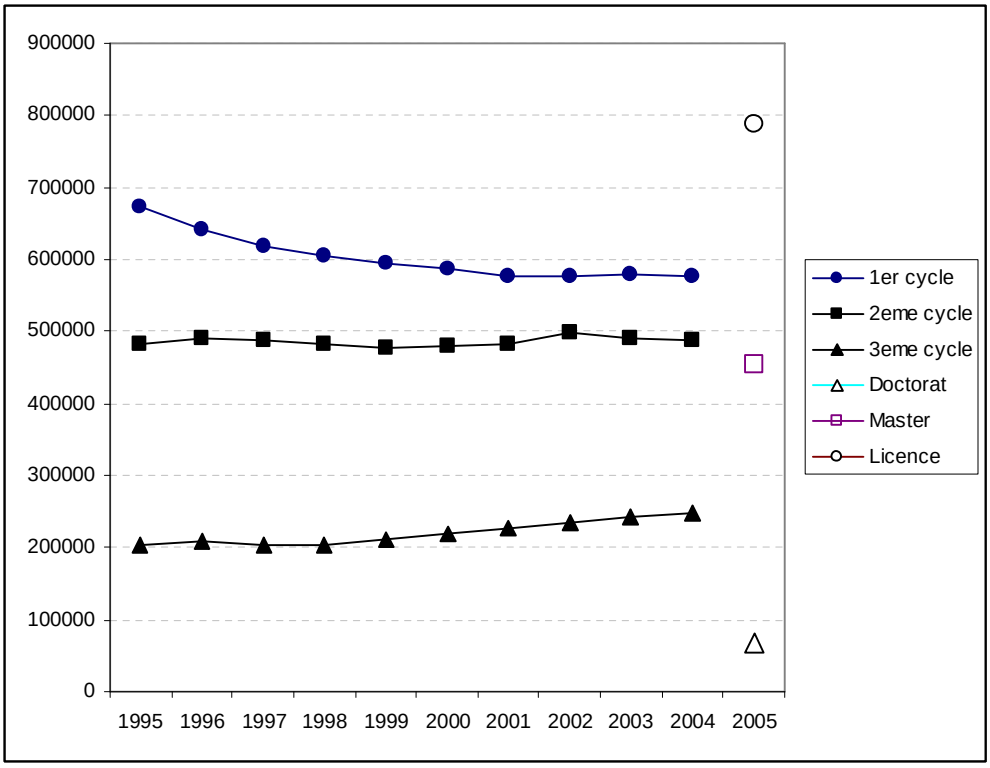
Table 1-2: Enrolment in French higher education, by type of institution

	1995		2000		2005	
Université	1359246	*63,9%*	1286564	*60,7%*	1310122	*58,7%*
STS	225233	*10,6%*	236795	*11,2%*	230403	*10,3%*
IUT	96086	*4,5%*	116095	*5,5%*	111296	*5,0%*
CPGE	70064	*3,3%*	69528	*3,3%*	74790	*3,4%*
Préparation intégrée	2209	*0,1%*	3571	*0,2%*	3058	*0,1%*
Écoles art et architecture	52601	*2,5%*	50558	*2,4%*	64598	*2,9%*
Écoles d'ingénieurs	51454	*2,4%*	58518	*2,8%*	68764	*3,1%*
Écoles de commerce	50416	*2,4%*	63561	*3,0%*	85092	*3,8%*
Écoles d'ingénieurs univ	24186	*1,1%*	30795	*1,5%*	32614	*1,5%*
Écoles juridiques et administratives	6705	*0,3%*	9786	*0,5%*	10477	*0,5%*
Écoles normales supérieures	3051	*0,1%*	3159	*0,1%*	3191	*0,1%*
IUFM	84245	*4,0%*	78054	*3,7%*	82003	*3,7%*
Écoles Paramédicales er Sociales	85572	*4,0%*	93386	*4,4%*	124201	*5,6%*
Autres Écoles	15843	*0,7%*	19226	*0,9%*	30692	*1,4%*
total	2126911		2119596		2231301	

Source: IHEM 2007

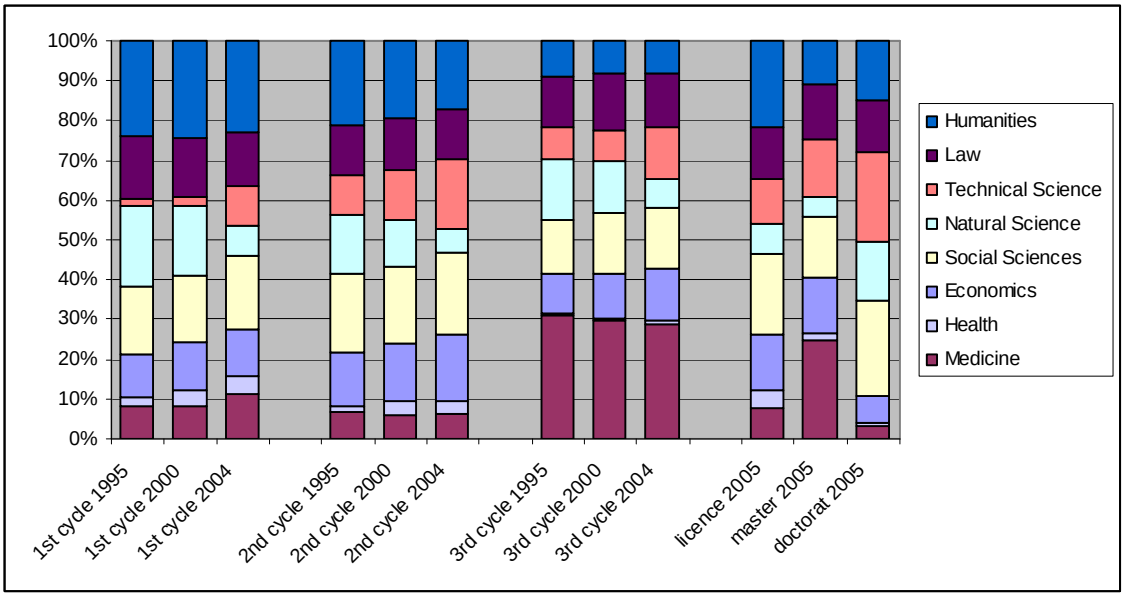
Within universities, the pattern of decline and stabilising is most prominent in the first cycle programmes mainly the DEUG). Enrolment in second cycle programmes (Licence and *Maîtrise*) was relatively stable and the third cycle (including the DEA, DESS and doctorat) has even grown. Since 2005, data are no more broken down by the old cycles but by the LMD cycles. The size of the third cycle has dropped because the DEA and DESS 'moved' to the master cycle. The master cycle is slightly smaller than the second cycle because the old licence moved to the Licence LMD, but gained DESS and DEA. The Licence LMD has grown since it comprises both the first cycle and the old licence

Figure 1-4: Enrolment in university by cycle



Broken down by discipline, we can see that humanities, social sciences and science and engineering are the largest disciplines, although the latter lost some ground the last decade. In the third cycle, medicine is the largest discipline. This is due to the large number of master degrees awarded in medicine, as can be seen from the 2005 data. In doctorate programmes, the bulk of enrolment is in science and engineering and social sciences.

Figure 1-5: Enrolment in public universities, broken down by discipline and level of programme



Note: due to changes in definition, the proportion of natural sciences and technical sciences have shifted in 2003.

1.2.5 Completion rates, drop-out and transfer rates

Most new entrants in universities (64.5%) remain in their track after one year (Ministère de l'éducation nationale 2006, table 6.18).

The proportion of IUT graduates continuing their study has grown. In 1998 42.2% continued their study (most of them in 2nd cycle university programmes). In 2004, the percentage had grown to 59.9. Of the STS-graduates in 1998, 17% continued their study and in 2004 that proportion was almost doubled. These high and fast growing percentages are remarkable since the DUT and BTS were designed as final qualifications.

Table 1-3: Status of persons who entered higher education in 1996 and 2002, after two years

	university		IUT		STS		CPGE	
	1996	2002	1996	2002	1996	2002	1996	2002
Completed in 2 years and continued	37	44.4	42.2	59.9	17.2	33.1	44.0	50.0
Completed and stopped			22.1	11.4	40.1	30.4		
Still in programme after two years	34	25.1	15.2	10.6	21.8	16.1	22.9	22.1
In other programme	18.7	22.2	14.4	14.5	2.1	5.1	33.1	28.0
Left educational system	10.3	8.3	6.1	3.6	18.8	15.3		

Source: (Ministère de l'éducation nationale 2006, table 6.20)

Note: CPGE: first row refers to percentage entered a *grande école*

Assessment and examinations

Universities set written and oral examinations on the content of the modules constituting each cycle, in order to award a DEUG a *licence* or a *maîtrise*. Procedures for assessing aptitude and knowledge are, pursuant to the provisions of the law of 1984, laid down by the president of the university or the head of the establishment, and approved by the Council for studies and university life (CEVU). Students are all entitled to sit two examinations, at an interval of at least two months, generally in June and September. The diploma awarded at the end of the third cycle attests not only success in the final exam but also the various personal research projects. In non-university institutions, a system of continuous assessment or annual examinations allows students' progress to be evaluated from the first year of study to the final diploma. Generally, courses include a practical training period, which must be followed by a report or a technical project, taken into account for the award of the diploma (Ministère de l'Éducation National 2000).

In the State or private *Grandes écoles* moving up is the discretion of the institution, which examines the student's results and profile, and decides if he or she may repeat a class or not. Generally, this is allowed only once. In universities, moving up from one cycle to another is allowed only if the diploma at the end of the cycle has been obtained. In the event of failure, students may request a further one or two years from the president of the university, to study for the modules in the diploma. In all cases, students retain the marks for modules in which they have obtained the average, from one year to the next.

1.2.6 Graduates and employment

The number of graduates in *Grandes Écoles* has grown steadily over the last decade, as has the number of graduates in IUT and STS. The latter is quite remarkable since enrolment has nog increased. First cycle graduation at universities (DEUG) has decreased, whereas in second cycle, the number of graduates (*Licence* and *Maîtrise)* has gone up. The new degree programmes (*Licence professionnelle* and the master have grown rapidly in terms of graduates. The growth of third cycle graduates has come to a halt because due to the new structure, the number of DESS graduates has been decimated.

Table 1-4: Graduates in main French higher education programmes

	1995	2000	2003	2004	2005
Diplôme Écoles d'ingénieurs	15084	15743	16573	16551	
Diplôme Écoles de commerce, Gestion vente et comptabilité		18342	24363	25179	
Diplôme Écoles d'ingénieurs univ	7605	8881	9864	10266	
DUT IUT	37362	47478	48142	47018	
BTS STS	76715	93841	103455	108839	106103
DEUG Université	129140	122844	116559	108714	109585
DEUST Université	1596	2154	2458	2417	2056
Licence Université	125579	135425	146358	137519	141921
Maîtrise Université	89950	93666	97819	94157	98635
Licence prof. Université			12939	17225	23975
Diplôme de docteur Université		6661	7185	6398	6844
Capacité en médicine Université		1554	1882	2072	2185
DEA Université (PG)	26335	23525	26819	26339	10516
DES/DIS Université (PG)	3540	3224	2763	2392	2506
DESS Université (PG)	21658	33312	47986	48101	19019
Doctorat Université (PG)	9472	10430	8454	9302	9597
Master Université (PG)			483	4303	58183

Source: IHEM 2007

Broken down by discipline, we can see that humanities are the largest discipline in first and second cycle university programmes. In third cycle academic programmes, sciences are the largest discipline, whereas in the professional programmes, economics is the biggest.

Table 1-5: Breakdown of university diplomas awarded by type of programme and discipline, 2005

	DEUG	DEUST	Licence	Maitrise	Lic prof	DEA	DESS	Master	Doctorat
Economics	14%	10%	17%	23%	33%	9%	38%	25%	5%
Medicine	0%	8%	0%	0%	0%	0%	1%	2%	3%
Social Sciences	22%	19%	26%	20%	11%	30%	19%	16%	15%
Natural Science	10%	10%	7%	8%	6%	8%	4%	10%	22%
Law	13%	8%	12%	16%	3%	22%	18%	17%	7%
Technical Science	11%	20%	13%	14%	42%	10%	14%	22%	38%
Humanities	24%	4%	20%	17%	2%	20%	6%	6%	9%
Health	6%	20%	5%	2%	1%	0%	1%	1%	1%

Source: IHEM 2007

Unemployment

The economic downturn at the start of the century end the downward trend in unemployment rates during the end of the 1990s. The baccalauréat only holders suffered most. The good position of holders of a bacc+2 diploma has deteriorated also. Second and third cycle degree holders were affected the least.

Table 1-6: Level of unemployment by level of educational attainment

	1995	1996	1997	1998	1999	2000	2005
Bacc	10%	10.4%	11.4%	11.0%	10.7%	8.9%	13%
bacc+2	7%	7.5%	8.2%	7.5%	7.1%	5.3%	6%
2nd & 3rd cycle	7%	7.4%	7.3%	6.8%	6.3%	5.7%	6%
Overall	12%	12.1%	12.3%	11.8%	11.8%	10.0%	12%

source: (Ministère de l'éducation nationale 2006, table 8.14)

1.2.7 Staff

1.2.7.1 Academic staff

At higher education institutions under the realm of the Ministry of education[3]

Permanent teaching staff comprises two types of personnel: teachers with higher education status and teachers with secondary education status.

The teachers with higher education status (*enseignants-chercheurs*) comprise professors (*professeurs des universités*) and lecturers (*maîtres de conférences*). There is a third type of higher education teachers, the assistants, but their number is decreasing since new assistants are no more recruited since 1984.

[3] This section is based to a large extent on Chevaillier, T. (2001). "French academics between the professions and the civil service." Higher Education **41**(1/2): 49-75.

Secondary education teachers were first recruited when IUTs were created in 1966. From 1986 their number grew steadily. There are two types of secondary teachers: *professeurs agrégés* and *professeurs certifiés.*

In addition to the tenured teaching staff, there is a range of types of full-time and part-time staff on contract.

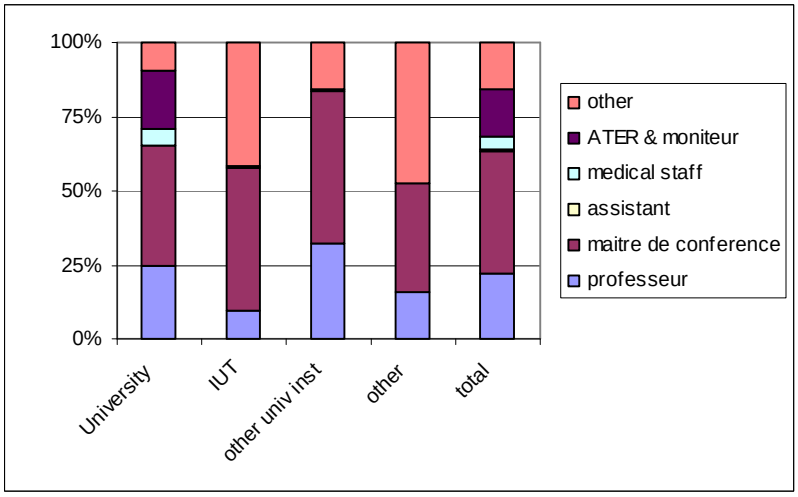
- Associate or visiting staff (*personnel associé ou invité*). Universities are allowed to use vacant positions to recruit full time associate professors or lecturers on three-year contracts. Visiting professors usually are foreign academics invited for a few months by universities. Associate and visiting staff have the same duties and rights as tenured staff
- Temporary assistants (*Attaché temporaire d'enseignement et de recherche,* ATER). They are recruited among advanced students who are close to the completion of their PhD or just have completed it. The contract is for one year and can be renewed twice and sometimes for a fourth year. They can be appointed to fill temporarily vacant positions of tenured staff.
- Instructors (*Moniteur*). They are recruited by the university among graduate students awarded a research grant to give a small amount of teaching (60 hours per year) to first and second year students.
- Foreign language assistants
- University hospital staff
- Part-time staff employed on an hourly basis (*Chargés d'enseignement vacataires* and *agents temporaires vacataires)*. *Chargés* ought to have a full time employment outside university, *agents* are graduate students. This category of staff accounts for a substantial share of teaching. Institutions get part of their recurrent funding to hire part time staff when permanent staff allocated to them does not cover the whole of their teaching needs. In newly created or fast growing institutions the use of these *vacataires* is very high.

Table 1-7 Academic staff by rank

	1997	1998	1999	2000	2001	2002	2003	2004	2005
professeur	17962	18353	18734	18991	19221	19418	19655	19849	19978
maitre de conference	29962	31576	32711	33570	33898	34743	35301	36124	36694
assistant	1650	1525	1460	1460	1530	971	673	389	255
medical staff	4058	4093	4118	4193	4196	4205	4205	4179	4280
ATER & moniteur	9793	9765	10573	11161	12467	13308	13917	13836	13965
2nd degree	12458	13194	14213	14550	13411	13317	13420	13382	13157
other	1053	1027			1024	721		1037	1037
total	**76936**	**78805**	**80965**	**83925**	**85511**	**86986**	**88195**	**88796**	**89366**
of which temporary staff	*17479*	*17578*		*19372*	*20688*	*21671*	*22271*	*22247*	*22395*
of which									
ATER	*5595*	*5485*			*6333*	*6784*	*7089*	*7326*	*7302*
moniteur	*4198*	*4280*			*6134*	*6524*	*6828*	*6510*	*6663*
associe	*2552*	*2693*			*3001*	*3134*	*3125*	*3195*	*3113*
assistant med	*4020*	*4093*							
foreign language	*1049*	*1027*			*1024*	*1024*	*1024*	*1037*	*1037*

source: NdI 99-25; 00-43,03-36, 04-29, 07-23

Figure 1-6 Academic staff by rank and type of institution, 2005-2006



Source : (Ministère de l'Éducation Nationale 2007)

Note: the category 'other' comprises the secondary education teachers. This category is extremely large in IUT and 'other', which is dominated by IUFM.

1.2.7.2 Non-teaching staff

Non-teaching staff (*Les personnels Ingenieurs, Administratifs, Techniques, Ouvriers, de service et de Sante*, IATOS) can be categorised in four groups:

- engineers, technical, and administrative staff (ITARF)
- School administrators and administrative staff regarding deconcentrated services
- technical staff, workers, and service and health staff (ATOS)
- library staff

Table 1-8: Non academic staff in higher education (headcount)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
ITARF	21517				25165	25629	26690	26549	27402	28256	30966
ATOS	24718				19594	18753	18907	18525	18308	17985	21186
Li-brary	3237				3709	3747	3984	4066	4393	4401	4456
Total	49472	45087	46347	45354	48468	48129	49581	49140	50103	50642	57171

Source: RERS

1.2.7.3 Recruitment

Permanent staff with higher education status are recruited on a national basis. Academic staff positions are opened by the minister, according to budgetary decisions of the parliament. The National Council of Universities (CNU) screens individual applications to tenured academic staff positions. The proposal of appointment, which is generally endorsed by the minister, is a joint decision of an individual institution and the CNU. Lecturers are required to hold a PhD. Professors should have in addition a *Habilitation à diriger les recherches.*
Staff on contract are recruited by the institution. Staff with secondary education status are also recruited by the institution. The minister allocates secondary teacher positions to the universities, that advertise their needs and process the applications as they see fit. The university president asks the minister to second (*attacher*) the selected candidates to his university.

1.2.8 Policy issues regarding higher education

In an advisory report to the minister, the Belloc committee suggested to formally diversify the tasks of the university core academic staff (*enseignant-chercheurs*). In addition to teaching and research, this staff should also be renumerated for their activities in other areas like administrative tasks and PR. Belloc urged the minister also to have a more systematic and rigorous evaluation of staff and to improve the renumeration methods by incorporating performance criteria.

In October and November 2005, France was shocked by riots of youth in the suburbs of several large cities. The desperate situation in which youth (and others) in these areas live proved to be a real threat to French society. Government promised to put in a large effort to address the problems.
One of the tracks along which government tries to do so is through changes in the educational system and the role education can play in providing youth opportunities for an occupational career.
One of the measures taken was the drafting of a law on equal chances. This law, intended to solve problems created a new crisis due to its article 8 on the *contrat première embauche* (contract for the first job; CPE). This CPE was a labour contract for those aged 26 years or less in their first job. The biggest problem with the old article was that the employer could end the contract without proper notice during the first two years of the contract. This was supposed to stimulate employers to hire more youth and thereby reduce the high unemployment rates among youth. After fierce opposition from unions, students and youth, the original article was withdrawn in April 2006 and replaced by a proposal for a law on access of youth in the labourmarket (especially those who were in underprivileged situations).

At the end of 2005 a call for projects to promote equal chances in university was launched and in June 2006, 54 projects (out of 104 proposals) were selected. These projects, that were implemented at the start of the academic year 2006, focus on three axes: better information for pupils in secondary education; better tutoring/ guidance for students in higher education (for those who need it) and an involvement of industry in achieving these objectives. For 2006-2007 €3.7 million were allocated to these projects

The national debate on university and employment

From April till October (the final report was published 24 October) a national debate was held on the problematic relation between university and employment[4]. The debate was initiated after the riots in October-November 2005. The concluding report of the commission organizing the debate proposes six ways to improve the relation university employment:

- Reduction of drop out in university
- Improve information and counseling
- Increase the professional orientation
- Create sustainable links between university and industry
- Create partnerships and provide information on career perspectives
- Reform the university system

To what extent the proposals will be adopted and implemented remains to be seen.

Restructuring of IUFM

In 1998 a process of evaluation of the teacher training schools (IUFM) was started. Round table conferences and other discussionforums were held to list the problems and suggest solutions. It was concluded that they had lost their professional character and teachers were no longer sufficiently prepared for the challenges the schools and pupils pose. The crisis in which the teacher training institutes were was, according to some commentators (Petrynka 2003) a consequence of the placement of the IUFMs in 1989 (the year the IUFMs were created) in the realm of the universities.

In the law on the future of the school (*loi d'orientation et de programme pour l'avenir de l'école* of 23 Aprill 2005) the new structure of the IUFM was regulated. The IUFM, like the other institutes with the EPA (*établissements publics à caractère administratif*) status, are placed under the direct responsibility of the Ministry of education. Yet, they have to integrate into a university and become an 'internal school' before the end of 2008. The curriculum of the initial teacher training is regulated in a national decree[5].

Accrediting prior experiential learning

[4] Source: Le site du débat Université Emploi, http://www.debat-universite-emploi.education.fr

[5] See also http://www.iufm.fr/applis/plan-site/plan-site.php

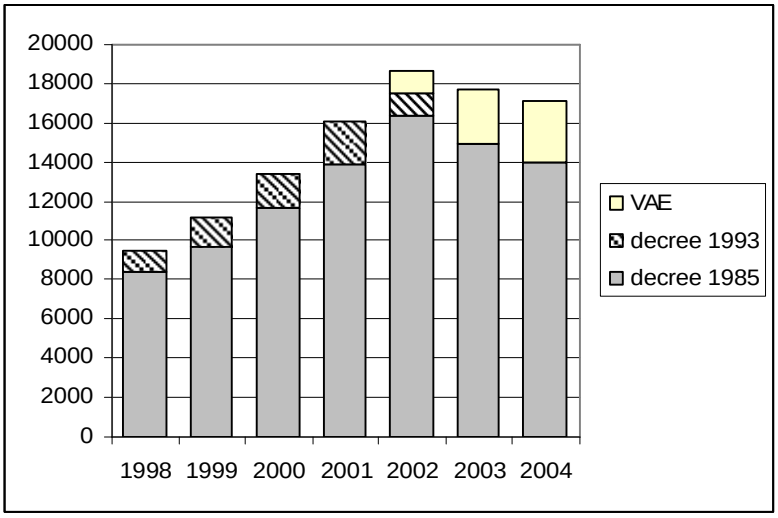
In addition to a decree of 1985 (allowing for exemptions on entrance qualifications based on professional experience) and a decree of 1993 (allowing to awarding of credits based on professional experience) in January 2002, a new measure for accrediting prior experiential learning (*validation des acquis de l'expérience, VAE*) was adopted. It modifies the conditions of access and the procedure for accrediting prior learning. The goal of the measure is to increase and diversify the public seeking the accreditation of prior work experience.
The measure in detail:

- The prior work experiences taken into account have been enlarged to include experience acquired in the context of an unwaged or volunteer activity
- The minimum length of the experience required for access to accreditation of prior learning has been reduced from 5 years to three years
- The field of certifications accessible though VAE has been enlarged to cover a greater number of vocational diplomas and titles and certain vocational qualification certificates

Candidates now have the possibility of obtaining the whole of a title or diploma through VAE.

The use based on the new law has grown but the use based on the old decrees has decreased since 2002. The use based on the old decrees is mainly in *Licence* and DESS programmes, whereas the use of the VAE is also more common in the first cycle programmes and the *Licence professionnelle.*(Ministère de l'éducation nationale de la recherche et de la technologie 2006, tab 8.16)

Figure 1-7: Persons benefiting from the accrediting of prior (professional) experiences



Source: Ministère de l'Éudcation National, 2007

1.3 Continuing Education

Continuing training which falls under the category of higher education is organised in the training centres of universities which offer facilities to adult students: special timetables for full-time workers, validation, etc. Furthermore, a certain number of diplomas can be studied for in the training centres of the *Grandes Écoles* authorised to do so. Lastly, each *académie* delegation has an *académie* centre for in-service training (CAFOC) which helps to train teachers and develop training skills.

Table 1-9: Characteristics of continuing education in higher education

	1985	1990	1994	1996	1998	2004
number of participants	338,000	384,000	272,000	371,200	410,500	422,770
number of hours	35,000,000	42,000,000	42,000,000	47,270,000	54,620,000	61.680.000
funds (in million €)	102,903	163,426	183,701	230,351	250,830	311,400

(Ministère de l'éducation nationale 2000, table 7.4; Ministère de l'éducation nationale 2006)

2. Research infrastructure

Research activities are concentrated in an institutional sector of their own. This sector has been expanding since 1939 outside the universities, some say to compensate for the weakness of university research. Since the 1970s, the links between universities and the research sector have grown and the 1968 Law gave the university professoriate the status of *enseignants-chercheurs*, stressing their research vocation.
In 1995, most of the university laboratories associated with CNRS were transformed in joint research units (*Unités Mixtes de Recherche*) after assessment and negotiation of a four-year contract involving the higher education institutions, CNRS and the Research directorate of the higher education ministry. University laboratories are classified since then as *UMR CNRS-Université* or higher education research units. The latter are further classified in three categories according to the result of an assessment by the *Comité National de la Recherche Scientifique* or experts from the ministry (Martin and Verdaguer 1999).

2.1 Performers

There are two main categories of performers of scientific research and development in France: the private enterprises and the 'administrations'. 'Administrations' comprises four types of institutions: public research institutes, higher education institutions, non-profit institutes and defence related institutions.

2.1.1 Public research institutions

There are three main types of public research institutes: public institutions with a scientific and technological character (EPST), institutions with an industrial and commercial character (EPIC), and public institutions with an administrative character (EPA) . Among EPST are the largest public research organisations like CNRS, INRA (agricultural research) and INSERM (medical research)[6]. The CNRS (*Centre National de la Recherche Scientific*) is the largest research organisation that provides resources to a large number of associated research-groups. The research groups are active in a broad range of disciplines. There are two main groups among the research groups: the 'own' research groups and the research groups that are associated to universities (*laboratoires universitaires associés).*
The largest organisation with an EPIC status is CEA (nuclear energy)[7]. Most of the third type of public research institutions are 'owned' by ministries.

[6] The other organisations are CEMAGREF (agricultural mechanical engineering), INRETS (transport), INED (demography), IRD (development), INRIA (informatics), amd LCPC (civil engineering)

[7] The other organisations are ADEME (environment and energy), IFREMER (marine sciences), CIRAD (agricultural development), CNES (space sciences), ANVAR (research evaluation), BRGM (mining), CSTB (construction), and LNE.

2.1.2 Higher education institutions

Research activities in this sector are mainly performed at universities and *Grandes Écoles*. There is some research done in other institutions (like IUT) but the size of these activities is very limited. University laboratories are classified since 1995 as *UMR CNRS-Université* or higher education research units. The latter are further classified in three categories according to the result of an assessment by the *Comité National de la Recherche Scientifque* or experts from the ministry.
Higher education institutions define their research policies in the four-year contracts they sign with the state.

2.1.3 Non-profit organisations

This type of institutions comprises associations and foundations that own research facilities (most of them are in the medical sector).

Table 2-1R&D resources used by type of performer (in million €)

	1993	1997	1998	1999	2000	2001	2002	2003	2004	2005
State and regional government	**5594**	**5181**	**5279**	**5357**	**5361**	**5432**	**5709**	**5767**	**6059**	**6305**
Civil	3589	4167	4505	4580	4584	4584	4835	4774	4984	5205
EPST excl CNRS and institutes	1008	1107	1160	1168	1198	1266	1363	1365	1413	1504
EPIC	2299	2776	3086	3159	3106	3060	3217	3156	3315	3440
EPA excl grandes écoles	185	156	130	136	142	150	153	151	157	162
Services ministériels	97	128	130	117	138	108	101	102	100	99
Defense	2005	1013	774	777	777	848	874	993	1075	1100
Higher education	**4192**	**4834**	**4986**	**5068**	**5804**	**6217**	**6512**	**6693**	**6806**	**7100**
EPST/CNRS and institutes	1714	1843	1843	1888	1877	1997	2135	2136	2155	2314
EPA/grandes écoles outside MEN	116	147	147	155	152	195	193	202	209	213
HEIs	2361	2843	2996	3025	3775	4026	4184	4356	4442	4573
Non profit	**358**	**385**	**422**	**448**	**439**	**456**	**468**	**463**	**458**	**447**
total public	10144	10400	10687	10873	11604	12105	12689	12923	13323	13852
enterprises	**16340**	**17357**	**17632**	**18655**	**19348**	**20782**	**21839**	**21646**	**22210**	**22543**
%public R&D spending in total	38,3	37,5	37,7	36,8	37,5	36,8	36,7	37,4	37,5	38,1

(Ministère de l'éducation nationale 2006, tab 11.1 and 11.5)

The business sector performs most of the R&D activities. Within the 'public' sector, most R&D activities are performed outside the universities. The role of *Grandes Écoles* in R&D is very limited (stable around 3%).

2.2 Providers

There are three main categories of providers of resources for R&D activities: 'administrations' (public authorities), enterprises, and sources from abroad.

The public financial support for research at university-based laboratories or research groups is supplied by

- the higher education part of research budget
- the CNRS budget
- other research councils

Table 2-2: Resources provided for R&D activities by provider (in million €)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Public	13647	13718	12980	12859	13267	14272	14673	15677	15891	16305	16801
Industry	13916	14373	15025	15865	16618	17166	18897	19082	18505	18831	19306
Foreign sources	2195	2320	2202	2096	2071	2224	2367	2756	2890	3139	
total	**29758**	**30411**	**30207**	**30820**	**31956**	**33662**	**35937**	**37515**	**37286**	**38275**	
% GDP	*2,55*	*2,54*	*2,44*	*2,36*	*2,38*	*2,40*	*2,46*	*2,47*	*2,39*	*2,36*	

Source: (Ministère de l'éducation nationale 2006, tab 11.1)

2.2.1 Intermediary organisations

France did not have a national research council until 2005 when the *Agence National de la Recherche* (ANR) was established. This organization is planned to become an important organization in allocating the € 6 billion that the French government has provided for the period 2005-2008. The ANR funds research projects that are in line with the national research priorities.

2.2.2 Staff

Full time research staff are usually employed by national research agencies like the CNRS even when they work in university laboratories or institutes.
Public research staff are employed by the state on tenured positions authorised by the parliament and allocated by the Minister for research to the various research agencies.
Tenured university staff of higher education status (*enseignants-chercheurs*) are supposed to spend half of their time teaching and half researching.
Temporary research staff consists of:

- Temporary assistants (*Attaché temporaire d'enseignement et de recherche*, ATER)
- Graduate students with a research grant (*Allocataires*).

2.2.3 Research policy

Research policy in France has a rather versatile character. With every new minister for research, new plans are developed and old plans are amended or abolished. A short overview of the last decade is provided below.
In 1998 the Minister of Education and Research launched a plan to reform the French research infrastructure. The goal of the plan was to improve the efficiency of the research policy, to stimulate research at universities and research organisations, and to fertilise the economy (Le Monde 1999; Ministère de l'Éducation Nationale de la Recherche et de la Technologie 1999).

The plan comprised seven issues

1. Co-operation between higher education institutions and research organisations. The major part of research is done in research organisations outside the universities. This is considered to be less efficient than the situation in which research is performed within a university setting. Furthermore, there has been a strong growth in the number of research organisations that has led to substantial inefficiencies.
2. Human resource management. HRM was characterised by four key words: *Rajeunissement* (more young researchers and providing them more academic freedom), *programmation* (based on an analysis of qualitative and quantitative needs), *qualité* (setting up a hiring and training system that assures high quality researchers), and *mobilité* (increase the mobility of researchers between research organisations, universities and industry).
3. Reform of governance. Governance structures are considered to be too bureaucratic, keeping the researchers from their research. Procedures will be simplified and central administrative bodies will be scaled down).
4. Evaluation. The traditional methods of research evaluation will be changed. Evaluations will become more independent, more transparent, and more international.
5. Technology transfer and industrial research. A new way to bring forward technology transfer and industrial innovation is proposed. Financial and fiscal measures will be taken to facilitate the creation of innovative enterprises, the law will be changed to enable researchers to work in industry, funds will be redirected towards innovative small and medium enterprises. These actions are backed up by a new law (1999) on innovation.
6. Regional dispersion of research. Although U3M states that research should be brought to the regions, it is noted here that this should not lead to a counterproductive dispersion, breaking down the renowned nuclei of excellent research.
7. Internationalisation policy. International co-operation will be continued but the principle of subsidiarity has to be respected and international co-operation should be better co-ordinated.

Against these plans however, there was a massive protest from the unions. The major point of criticism was that the researchers, as well as the higher education institutions and research organisation felt that the plan was a threat to their academic freedom and institutional autonomy.

In February 1999 a committee of two senators (Cohen and Le Deaut) was asked by prime minister Jospin to break the stalemate that has developed between the research world and the minister. During the summer of 1999, this committee met a substantial number of researchers and representatives of research organisations. Their work was built around five questions:

- Do the present regulations regarding recruitment, staff mobility and evaluation contribute to an efficient achievement of the research missions?
- How can the exchange of staff between research organisations and universities be stimulated?
- How can young researchers get access to academic research and get autonomy in their work?

§ How do researchers, research groups, and institutions have to be evaluated and how can new research themes be identified?
§ How can research be more responsive to society?

The committee produced a report comprising 60 recommendations (Commission Cohen-Le Déaut 1999). The principal ones relate to the employment and careers of young researchers, the synergy between research and university, and the evaluation of research. The Minister agreed with these recommendations except two: the provision of 'premature' tenure to young researchers and the recommendation to set research priorities by law.

In May 2000 the new minister for research, Roger-Gérard Schwartzenberg outlined the principal initiatives regarding research and technology policy (the New Deal for research). These initiatives show a considerable overlap with the plan described above. The principles are:

- *Rejuvenation of the research sector*. On the one hand, the French research community is growing older: the average age of researchers with or without teaching duties is 46. On the other there is the "waiting queue" syndrome whereby young qualified doctors have difficulty in entering the research sector. Because of this, the need is felt to set up a long-term and anticipatory management system for staff recruitment: a strategy for planning public research needs to be drawn up in consultation with all of the parties involved in research and implemented over a period of years. To help young teams wishing to present innovative projects, explore new disciplinary fields and directions in research, and to encourage young researchers to take on scientific responsibility, the Concerted Incentive Scheme for Young Researchers is continued. In 1999 this invitation to tender scheme was allocated € 7.5 million. In 2000 its budget is increased to € 11,6 million.
- *Promotion of interdisciplinarity and mobility*. Interdisciplinarity and mobility are promoted to avoid compartmentalisation and overcome barriers and borders that might cause research to fragment into tiny units shut off from the rest of the world.
- *Improvement of evaluative procedures.* Currently, research assessment has a complex and multi-faceted character, which results above all in the duplication of Assessment bodies: scientific councils at department level and the specialised scientific commissions of the large research bodies (e.g.: the National Committee for Scientific Research CNRS), the national Committee for Research Assessment (CNER), created in 1989, or even the Higher Council for Research and Technology (CSRT). The desire is to create, mainly for the strategic assessment of establishments, a new structure that could take on the current tasks of the CNE and the CNER and merge them under a National Assessment Committee for higher education establishments and research bodies.
- *Creation of closer ties between higher education and research*. The main thrust of this initiative is to build up and strengthen the links between research bodies and universities. On the one hand, this can be done by creating genuine synergies in science: by developing joint structures (multi-purpose laboratories, federal research institutes, etc.), a project that will entail significant financial investment in the 4-year university research programmes concluded between central government and tertiary education institutions and the planning programmes between central government and the French regions. On the other hand, there is a need to put in place higher-level incentive measures to encourage greater mobility between research and higher education institutions.

- *Preferential treatment of innovation and technology transfer.* A further initiative is to continue to link public research to the commercial world, two areas no longer divided by a wall of defiance, to continue to link research to enterprise in order to encourage the promotion of research and the transfer of technology. This will enable research results to filter through to benefit the economy. The bill of 12 July 1999 on innovation and research represents a very significant step forward. Researchers themselves must be able to set up businesses that will promote the results of their work, and should be free to hold capital shares in companies. Similarly, to accompany and support the entrepreneurs behind innovative business creation projects linked to public research, the minister intends to continue and expand the incubators and seed fund policy. Furthermore, before the close of the year 2000 the minister intends to set up the National Centres for Technological Research (CNRT)**,** which will bring together public laboratories and private research centres at a precise site and on a specific theme.
- *Development of priority disciplinary sectors.* These priority disciplinary sectors are life sciences, information and communication science and technology, research on environmental and energy issues that constitute the core of sustainable development, closer links between science and society by paying greater attention to the social and human sciences (the humanities) and revitalisation of space exploration.

In the 2001 budget for civil research and technological development, four main priorities are described, which are consistent with the first plans of the minister:

- an increase of the human capacity in research by creating new positions for researchers and support staff and making the scientific careers more attractive.
- an increase in the resources for laboratories
- continuation of the policy regarding priority disciplines. Additional funds are provided to research in three disciplines through the *Fonds National de la Science* (FNS) and through the *Fonds de la Recherche et de la Technologie* (FRT).
- Further development of innovation and R&D in industry. It is felt that the part of R&D in industry is too small, compared to other countries.

With the new government, the 10-year plan on HRM in higher education proposed by the former minister Schwartzenberg was abolished. The main goal of the new minister for research and new technologies (Claudie Haigneré) was to increase its R&D spending from 2.4% of its GDP to 3% by 2010 (Haigneré 2002).
The minister has outlined five priorities to prepare for the future:

- To attract more young people to research by providing them more attractive perspectives. Instruments to be used are: an increase of the level of research scholarships (by 5.5%), the creation of 400 post-doctoral places (based 12 to 18 months contracts), an increase in support staff to free time for researchers, and the specific stimulation of priority research areas.
- To develop a strong and open public research. For that, the resources for university research will be increased, post-doctoral places will be created, and contributions to international research organisations will be increased.

- To investigate the synergies between public and private research in order to uphold innovative power.
- To support the major industrial and space research programmes
- To embed science in the heart of society

In January 2004, a number of researchers wrote an open letter to the minister with a call to save public research in France. By the end of that month over 30,000 academic staff members signed this outcry. It was stated that the resources made available, in terms of funds and of posts, have gone down at a rate that poses a threat to publicly funded research[8]. The minister refuted those allegations in a letter to the researchers (Ministère délégué à la Recherche et aux Nouvelles Technologies 2004).

The big turmoil in the French research community, which started in January 2004, lasted all winter and spring of 2004. The researchers demanded that the funds frozen in 2002 were freed, that a significant increase of posts for young researchers would be realised and that a platform for discussions on the future of research in France would be launched. After heated debates, the minister gave in on these demands. This however did not stop the crisis (in March nearly 1400 researchers in management positions resigned from these positions). The new minister ended the crisis in April by promising a large number of additional posts for researchers, technicians (550) as well as 700 posts for professors and assistant professors in 2005. He also promised to put a planning law regarding research on the political agenda in the Autumn of 2004[9].

Parallel to the elaboration of the planning law (which was postponed to 2005) the universities came with a proposal to develop '*Pôles de recherche et d'enseignement*'. These *Pôles* have to group organisations that can co-operate and co-ordinate their activities regarding teaching, education, and research[10].

In 2005 the proposal for the *Loi d'orientation et de programmation de la recherche* (LOPR) was presented. In the LOPR, the minister introduced the *Pôles de recherche et d'enseignement supérieur* (PRES), in which universities, research organizations and *grandes écoles* within a region are brought together, as well as the *Parcs de recherche* in which start-up technologies are brought together.
To bring these two new structures together yet another label or structure was invented: the *Pôle de compétitivité* (*à vocation technologique*). These new *poles de compétitivités* should become growth and development ecosystems that help to consolidate the French position in international competition.

[8] http://recherche-en-danger.apinc.org/.

[9] http://www.amue.fr/Outils/Imprime.asp?TypeDoc=Actu&Id=745

[10] http://www.cpu.fr/Outils/Imprime.asp?TypeDoc=Actu&Id=837

Universities were concerned that high level research will be concentrated at these few PERS, leaving the small and medium sized universities with scraps. Students had their concerns regarding the PRES because of the potential link between PRES and the creation of Master programmes. If such a link would emerge, master programmes would become scarce and selective (Chupin 2005, pp. 13-14).

The proposal, also known as the 'Pact for research' was translated into a law that passed parliament on 18 April 2006. The law (*la loi de program pour la recherche no 2006-450*) is structured around five objectives:

1. Strengthening the strategic evaluation capacity and the definition of priorities
    a. a science and technology council (*le Haut conseil de la science et de la technologie*) was put in place in September 2006 to advise the government regarding research priorities
    b. the ANR (*agence nationale de la recherche*) funds as research council projects according to national priorities
2. Putting in place a unified, coherent and transparent research evaluation system
    a. Based on the law, a new agency (*Agence d'évaluation de la recherché et de l'enseignement supérieur*) was officially established by the end of October 2006, to evaluate the research activities of public research units (as well as the teaching activities of public higher education institutions). The AERES is to replace the existing evaluation agencies (CNE and CNER).
3. Concentration of resources and facilitation of co-operation between actors in research
    a. On 23 May, two instruments from the Pact for Research were launched: the *procedure d'identification et de selection des réseaux thématiques de recherché avancée (RTRA)* and the *Pôles de recherché et d'enseignement supérieur* (PRES). Both instruments aim at reinforcing the co-operation between actors in the higher education and research field and to boost the attractiveness of the French higher education system and research.
    b. The RTRA are research networks grouped around research units in a certain region that may create the critical masse for conducting excellent research. Government puts in some money to create these *réseaux*. In May 2006 10 proposals for the construction of such RTRAs were selected for funding.
    c. The PRES are created to mutualise the activities and resources between various research organizations and higher education institutions, to increase their visibility, efficiency and attractiveness. All higher education institutions have created a PRES. The most ambitious ones will get a four year contract with the state in which the mutual resourcs will be complemented (Ministère de l'éducation nationale de l'enseignement supérieur et de la recherche 2006)
4. Improvement of scientific and academic careers
    a. The first action announced here is the renovation of doctoral education. Doctoral schools have to become the sole places where doctoral education is offered and that may award doctorate degrees. Quality assurance will become more important, for which another agency is responsible (within the framework of the contract between the institution and the minister

   b. An increase of research allocations
   c. The creation of an observatory (***Observatoire de l'emploi scientifique***) that will provide better insights in the career prospects of young doctors
   d. The creation of an excellence program (Descartes scholarships) in 2007
   e. The expansion of a scholarship scheme to get new PhDs in job in industry and to create a new scheme (***Conventions pour innovationet la promotion de la recherché en enterprise***; CIPRE) for post doctorates.
5. Intensify innovation and the links between public and private research
   a. The instruments used in this respect are predominantly financial

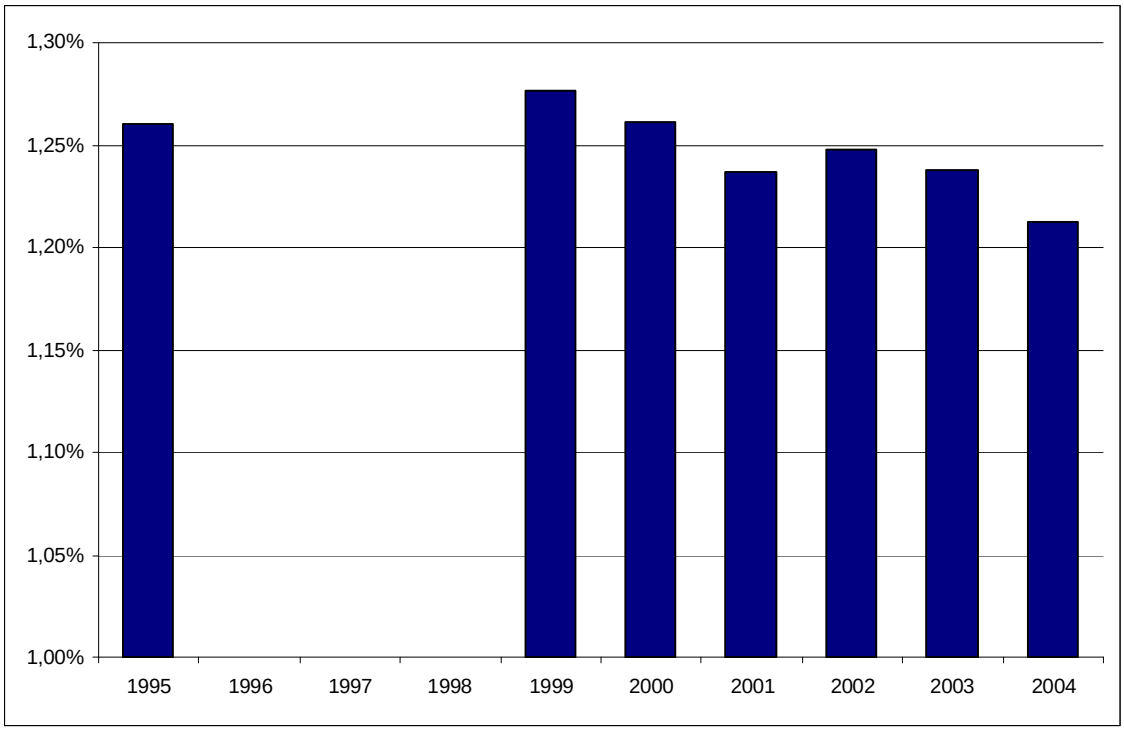
The new government that came into power in May 2007 did not change the research priorities.

3. Finance

3.1 Introduction

Total funding of higher education has slightly increased in the 1990s, but it decreased in the new millennium.

Figure 3-1: Expenditure on higher education, as a percentage of GDP, France metro and DOM

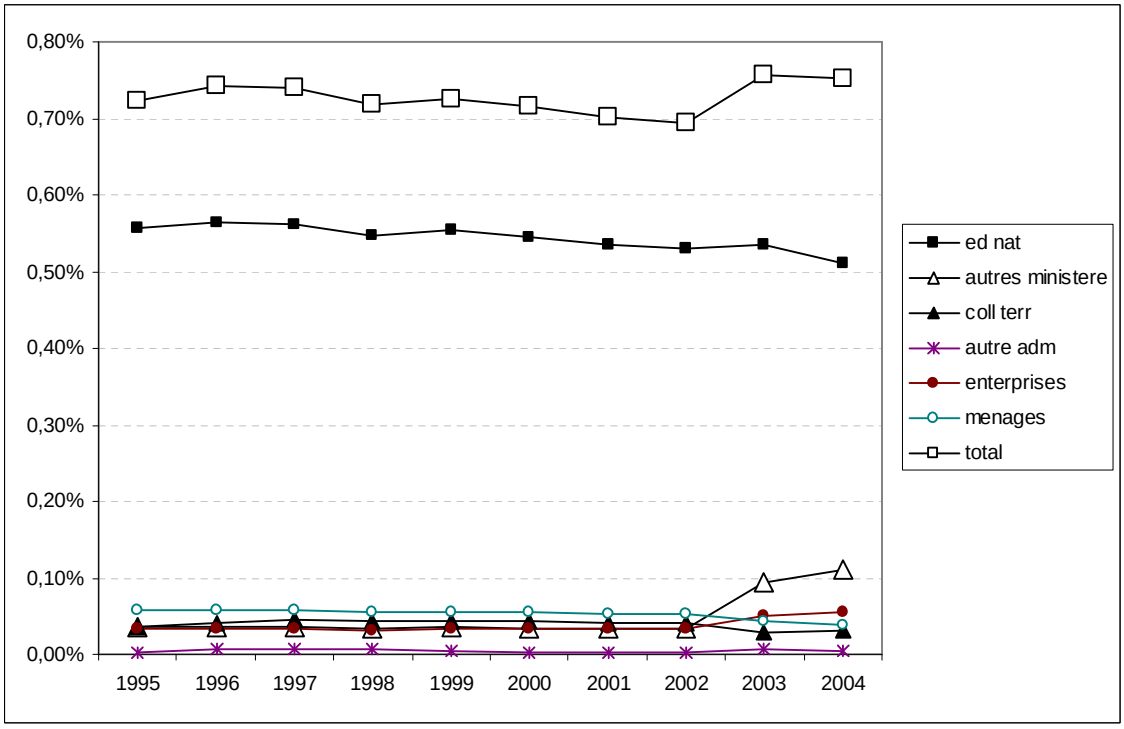


Source: RERS tabl 10.3

La dépense intérieure d'éducation au niveau d'enseignement supérieur

Funding by the Ministry of Education and Research has slowly decreased, whereas funding by other ministries and abroad has gone up significantly in 2003.

Figure 3-2: Funding of providers of higher education, by provider, as a % of GDP, France metro + DOM



Source: RERS tabl 10.4

Financement des producteurs d'enseignement et de formation; depenses totales des financeurs finals.

3.2 Funding mechanisms

For the majority of French public higher education institutions, the S.AN.RE.MO model is used to allocate staff and financial resources to the institutions. This input-based allocation-model was applied to 228 institutions (81 universities, 7 *Instituts d'Etudes Politiques*, 102 IUT and 28 engineering schools). The base for calculating the resources is the number of students enrolled. All programmes are categorised in a grid that serves as a weighting device. The level and type of programme determines the weight. In order to determine the number of staff an institution is theoretically entitled to, enrolment is weighted according to that grid. The distribution of financial resources is determined by four criteria: the need for additional staff hours, the type of pedagogical function (technical versus general), the amount of floorsurface, and the compensation for non academic support staff. Fees paid by students are subtracted from the state subsidy.

A part of the resulting subsidy is devoted to compensate the lack of faculty members and rent temporary part time lecturers.

The theoretical results of applying the model are 'corrected', based on an evaluation of the balance in resources between universities and IUT, the contracts signed, and particular circumstances (Ministère de l'Éducation Nationale de la Recherche et de la Technologie 1998, pp.58-59).

Private higher education institutions may receive public funds if they are recognised by the state. The amount of funds and their destination is part of a contract between the higher education institution and the state (Ministère de l'Éducation Nationale 2000).
The State has remained responsible for investment in higher education, and is in principle the only decision-maker as regards building. However, since 1968, when they were granted autonomy, institutions have been able to put forward proposals regarding building and equipment corresponding to their needs, both for teaching and for research and libraries. University investment projects are examined and assessed by the *rectorat* in the light of the *académie* policy in higher education, and are then submitted to the Ministry, which will take the final decision. The State finances the building, the extensions and the equipment of universities. However, since 1989, it has shared financing with the territorial authorities. The projects U2000 and U3M have been important frameworks for these shared responsibilities.

Only part of the higher education funds is spent by the higher education institutions. Of the € 7 billion budget in 1998 only 21% went through the universities. The salaries (55%), student support schemes (17%) and construction (4%) are the main items that are paid directly by the state (Ministère de l'Éducation Nationale de la Recherche et de la Technologie 1998).

Core funding of teaching activities
The core funding is determined according to the funding mechanism described above.

Apprenticeship tax
A particular characteristic of higher education funding is the apprenticeship tax. Companies are obliged to pay part of their wage sum (around 0.5%) as apprenticeship tax. However if they participate in an apprenticeship scheme with a (higher) education institution, they may use that money in that scheme.

Tuition fees
In France, all students in first and second cycle programmes, except those receiving a study grant, have to pay a small registration fees. The amount to pay depends on the type of programme and the type of institution one is enrolled in. The level of the fees charged at public higher education institutions is decided by the Ministry of Education. At private higher education institutions the tuition fees are set by the institutions.

At the public higher education institutions participants in the third cycle programmes pay a small registration fees. The amount to pay depends on the type of programme and the type of institution one is enrolled in. The level of the fees charged at public higher education institutions is decided by the Ministry of Education. For other post-initial programmes at public higher education institutions and at private higher education institutions the prices are set by the higher education institutions themselves. The levels vary from € 108 for basic studies up to € 740 for degrees in specific subjects. Fees charged by private institutions vary between € 1450 and € 5800 annually. In addition, French students have to pay a health insurance fee varying between € 218 and €300 annually.

Due to the fact that most of the higher education institutions have started to implement a LMD structure in (part of) their programmes, new tuition fees were announced. Since increasing the flexibility of the system was part of the reason to introduce LMD, the fees have been standardized for each programme: €150 for licence, €190 for master and €290 for doctorat. This standardization ends the situation in which fees where higher for professional programmes. This new scheme does not apply for *grandes écoles* and para-medical schools (Ministère de l'éducation nationale de l'enseignement supérieur et de la recherche 2004).

Research funding

Public research funding consists of a number of flows of resources.

- The first flow consists of the resources allocated through the basic funding of universities. This is part of the San Remo model, described above.
- Another flow is the resources allocated through the contracts between the institution and the state (the *contrats quadrinieaux*) and the contracts between the region and the institutions.
- The resources allocated to the research organisations is a third flow.
- The fourth flow are the research funds that are allocated on a competitive basis by research councils like the new ANR.

Most of these flows, excepts for the last, are based on recurrent assessment and output based criteria. (Martin and Verdaguer 1999)

3.3 Student support schemes

Students at public higher education institutions and private state recognised higher education institutions are eligible for student support. The system of direct financial student support mainly consists of grants. There are two types of grants: grants awarded on social criteria and grants awarded on university criteria.

The grants on social criteria are awarded to students on economic grounds, including the student's own income, that of his or her parents, and their family expenditure. The amount of income taken into consideration is announced each year by ministerial circular, and may vary from one year to the next. Only French students of 26 and under, preparing a national diploma or recognised university diploma, showing due proof of eligibility and studying full-time, may apply for a grant. The *recteur* of the *académie* is responsible for award procedures (management and examination of applications). Management of higher education grants is organised at *académie* level by the regional centres for university and school life (CROUS). In order to facilitate the student's application, a new, single social file on each student was adopted in all *académies* at the start of the 1996 school year, and contains both grant and housing applications.

Grants on university criteria are not granted according to economic criteria but according to merit. Grounds for award include assessment of work accomplished, and school results. They are awarded to students already in possession of a postgraduate degree (*Baccalauréat* + 5 years), or to students studying for competitive examinations of high standard such as the CAPES or *agrégation.*

The number of students benefiting from financial assistance (social grants, university grants and exceptional payments) rose from 272,996 in 1990/91 to 522,242 in 2005/2006/00, which is 30.21% of total enrolment. In 2005, 95% of the grants awarded were grants on social criteria (Ministère de l'éducation nationale de la recherche et de la technologie 2006, p.321).

In 2006, grants varied between € 1335 and € 3661 annually, depending on family income, the number of children in the family, the residential status of the student, the distance to the higher education institution and the level of the programme a student follows. The grant covers at maximum half of the costs of study and the cost of living.

Students not eligible for a grant may receive an interest free loan (***prêts d'honneur***), which is an income contingent loan and is allocated by a committee of the education institution (*Académie*). In 2005 2578 of such loans were provided.

Furthermore, French families with studying children benefit from child allowances and tax deductions. Parents are financially responsible for their children until the age of 18. In addition, parents can benefit from child allowances and tax reductions if their children are under the age of 26 and are following (higher) education. The amounts of these benefits depend on the number of children in the family. Furthermore, tax reductions are available for families with (studying) children.

Public expenditure on student grants (***bourses d'études***) increased throughout the 1990s, but as a percentage of the GDP, the growth levelled off in the mid 1990s. In 2006, the total budget for student support (direct and indirect through subsidising facilities) was 0.1 % of GDP.

Table 3-1 Public expenditure on student support (in million €)

	1995	2001	2005	2001-2005 constant prices
State	**3129**	**3950**	**4128**	**-1,1%**
direct support (grants, loans, subsidies to housing and transport	*1787*	*2350*	*2521*	*1,5%*
indirect support (CNOUS and CROUS)	*275*	*353*	*372*	*-0,1%*
fiscal support	*1067*	*1247*	*1235*	*-6,3%*
Other	**381**	**336**	**438**	**23,5%**

Source (Ministère de l'Éducation National Enseignement Supérieur et Recherche 2007)

3.4 LOLF

The LOLF, the law on the new public budgeting and accounting system was introduced in 2001, but became in force for the higher education sector on 1 January 2006[11]. The LOLF is a way to improve the transparency of the budgeting system and to make it more performance based. With the new system, the Parliament has more information on the performance of the public sector and the idea is that this will enable the Parliament to formulate better strategic policies and priority setting. Under the new law, Parliament discusses the whole budget, whereas in the previous situation only the new projects were discussed.
The budget is now broken down in missions, that are broken down in 150 programs, that are divided into programs. This gives the public agencies that work on those actions more insight in the contribution they are expected to deliver.
The agency responsible for a program (higher education and research is one of those programs) has to write an annual performance plan (PAP). In this PAP the objectives for the program and the indicators of performance are described. As an input for this PAP higher education institutions have to deliver information on those indicators. In order to reconcile the autonomy of the institutions and the national objectives of the program, those objectives need to be operationalised in a contract, along with the precise list of indicators.
There have been some experiments at individual institutions with the new budgeting system. In an evaluation of the experiment in one university it was concluded that the experiment had an impact on the governance and management of the university. The introduction of the LOLF model has lead to a change of organizational model, from the traditional professional bureaucracy model to a more performance based, transparency and activity oriented model (which the researchers call the LOLF-model). The formalization of university strategy as a prerequisite for performance budgeting and the development of new budgeting and reporting procedures were seen as major changes. However, the development of LOLF changes was also hindered or slowed down by poor ministerial and internal information systems and the influence of external pressures on the organization. The implementation of the new budgeting and accounting systems creates substantial operating costs.
The external pressures threatening the implementation of the LOLF model comprise specific regulations that frustrate the process as well as the huge societal pressures and challenges that universities are faced with. French society has been faced with grave problems. Government has put up the universities with the challenge to make a substantial contribution to solving those problems. These challenges, that universities have to face with limited financial means come on top of the daunting task to change the governance and management according to the LOLF model, a task for which most universities were not yet ready, early 2007. In addition, the centralized government still sets human resource policies, tuition fees, selection and loan policy.
The LOLF has a large potential in creating a more transparent, performance based and flexible budgeting system; experiments show promising results. But at the same time university managers are complaining about the lack of tools they have to implement the LOLF. How and when the LOLF will lead to a new management model in higher education institutions remains therefore to be seen.

[11] For more information on the LOLF see http://www.amue.fr/LettreLolf/

3.5 Policy issues

3.5.1 Financial responses to changing enrolment

The strong growth of enrolment in higher education in the late 1980s and early 1990s was the main reason for the Minister of Education to launch the plan U2000 in 1990. The goal of this plan was to invest in the higher education infrastructure to accommodate the wave of new students. A crucial element in this was the co-operation between the central government and local authorities. Through such partnerships the central government was able to add to the financial contributions of the local authorities. The plan has led to a geographical coverage in terms of higher education institutions that was considered to be complete by 1999. The part of the HE-system that has expanded most (in terms of higher education institutions) are the IUTs. Although U2000 is generally considered to be a success, there are two omissions in the plan: the limited attention paid to research and the lack of measures focused on the situation in the Paris region.

The *Université du 3ème millénaire* (U3M) plan, was initiated in a completely different context from the context of U2000. The main difference was the decline in enrolment in higher education. U3M had to ensure that higher education and research can contribute more to the economic development of the country (and the regions). Therefore, close relations between teaching, research and industry are considered to be essential. Because of the focus on economic development, regions are becoming more important.
U3M had a double focus. On the one hand it was a prospective reflection on the organisation of the education and research system and on the other hand it focused on the planning of higher education (especially research) within the framework of the *Contrat de Plan État-Région 2000-2006*.
More concrete, budgets were allocated to

- construct student facilities (like restaurants, libraries, and sports facilities). Around one quarter of the budget of U3M is allocated to these activities,
- enhance the participation of foreign students,
- invest in university facilities (especially in Paris and research facilities at new universities),
- regionally balance the resources and facilities for research. Research should be more responsive to the needs of the local and regional economy.

The regional participation in U3M was determined in a process of negotiations between the central and regional governments within the framework of the *Contrat de Plan État-Région 2000-2006*.

The U3M plan was a joint effort of the state and the territorial authorities, completed by European structural funds. The total budget for the 2000-2006 was over €7.25 billion. Of this budget, 80% was covered in the planning contracts between the state and the regions (*Contracts de Plan de l'État-régions,* CPER). The ministry of education contributed €2.5 billion to these contracts. The budget outside the contracts is to be spent on renovation of two museums, one campus and security of university buildings (Ministère de l'Éducation National 2000).

3.6 Contractual policy

The concept of contracts between the state and individual higher education institutions was introduced in the 1984 law on higher education. The contractual policy was first limited to research but in 1989 all activities became in the realm of contractual policy. The contracts became known as *contract unique* or *contrat quadriennal* (CQ). In 1998, the concept was relaunched.

The aim of this contractual policy is both to give genuine new autonomy to universities and to allow the State to exercise fully its responsibility to boost and co-ordinate activity in higher education. Each establishment draws up a four years development plan corresponding both to national objectives and to local training needs. The plan covers all the activities in the establishment (teaching, research, internationalisation, management, etc.), regarding all actors (students, staff, public authorities, and external parties). The plan is addressed to the appropriate department of the Ministry, and then negotiated with it. Finally, a four-year contract is signed.

The contract is not a legal contract but has to be seen as a set of mutual, explicit and formalised engagements. However, this is not considered to be a problem since it serves other purposes as well:

- the contract is a factor in the overall development policy, common to all the players in the institution.
- the contractual policy is central in the dialogue between the state and the higher education institution. It gives the higher education institution the opportunity to develop its own profile, specifying its strategic choices. These choices have to be 'in line' with the national policy(objectives).
- The contracts are for the state a new way of steering higher education institutions. The four year contracts show the objectives and priorities and have the intention to combine the national steering and the emergence of true institutional policies. The contract is a reference point for the annual decisions made by the government (HRM and resource allocation). The four year contracts are signed in four rolling waves.
- the contract is a management tool enabling projected means to be allocated (particularly operating funds).

In 2007, 204 higher education institutions (universities, IUFMs, engineering schools and *Grandes Établissements*) were involved in the contractualisation policy, comprising more than 1.5 million students.

The amount of funds available through contracts was €610 million in 2005. This is almost one third of the public subsidies provided by the state to the higher education institutions. The funds are earmarked. There are three categories: research (50%), buildings and facilities (20%) and other activities (30%) including new technology, student life, libraries etc. (Ministère de l'enseignement supérieur et de la recherche 2007, p.17)

In 2003 there have been some evaluations of the contract policy and the CQs. The main conclusion was that the contracts were successful but should be revised if they were to play an important part in the steering of higher education in the LOLF age.

The increase in institutional autonomy is accompanied by an increase in accountability. Higher education institutions have to show how they have performed, through an internal and external evaluation. For that reason the contracts comprise indicators that can be used to measure the performance according to the objectives agreed upon.
The external evaluation has improved because of the improved cooperation between the CNE and the Inspection (IGAENR). These external evaluations focus on both qualitative and quantitative aspects of the performance under the contract and in drawing the conclusions, the institutional strategy and objectives explicitly have to be taken into account.

Two external 'events' have had a substantial impact on the role of the contracts. The first is the structural reform following the Bologna declaration. The introduction of the LMD scheme (licence-master-doctorat), and the restructuring of the program offerings, have been and still are major aspects in the contractual negotiations. The coherence of the program offering and complementarity with offering of other higher education institutions in the region are part of the negotiations to make sure that the higher education institutions may contribute to the regional development.

The second event is the enactment of the LOLF in the realm of higher education. Certain characteristics of the LOLF are already present in the current contracts: the contracts permit the funding of institutional objectives, objectives that are in line with the national objectives, project orientation, culture of dialogue and negotiation.
Based on the experiments that started in 2004, it can be concluded that, in order to comply with the new situation, the existing contracts need to be expanded/ adapted in two respects:
The operational institutional objectives that are derived from the national goals need to be both quantitative and qualitative, and specific for each institution. It is essential to keep the richness of the contracts.
The evaluation will be more based on a monitoring systems as required in the LOLF: based on indicators of performance, activities and costs. Higher education institutions have to develop information systems that enable them to assess internal governance processes and to monitor the realization of the objectives and the resources used in the process.

4. Governance

The French (higher) education system can be characterised as a centralised system in which the central authorities decide on important issues like staff recruitment, content of programmes and budget. However, the role of other actors has increased since the process of decentralisation started in the early 1980s (decentralisation law of 1982). In this chapter the main actors and their roles in decision-making are described. In the second part of the chapter the roles of the various actors are summarised around a number of important issues in higher education policy.

4.1 Actors in the higher education field

4.1.1 The central government

The central government is not a monolithic actor in the field of higher education and research. First of all, there are a number of ministries that are responsible for higher education institutions. The Ministry of Education is the obvious one and has the broadest scope but there are also other ministries that are responsible for mainly specific schools and institutes.
The Ministry of Education has changed its name and scope a number of times during the last decades. Youth and sports has moved in and out the realm of the ministry. Research has also been at times part of the Ministry of Education. In 2007, the Ministry of Education and research was split into two ministries. The Ministry of National education comprises only education up to secondary education. Higher Education and research are in a separate ministry: the Ministry of higher education and research.

4.1.2 Territorial authorities

There are three types of territorial authorities: *communes* at the local level and *départements* and *académies*[12] at the regional level.
The territorial authorities were vested with new powers in three essential areas. First, each authority is now responsible for a particular level of education: the *commune* is responsible for primary schools; the *département* for *collèges* and the *académie* for *Lycées* and for specialised establishments. Secondly, school planning is now organised to include the territorial authorities in decisions about the levels for which they are responsible, drawing up projected training and investment programmes. In other words, every building, rebuilding, or extension of schools deemed advisable is also decided by the territorial authorities. Thirdly, local authorities were given a more decisive role in the daily running of schools.
The role of the *académie* or rectorat administration in higher education is due to the *recteurs* powers, first as the representative of the Minister of Higher Education and second, as "Chancellor of universities". As the representative of the Minister for Higher Education, the *recteur* has both hierarchic and administrative roles in the direction, management and stimulation of institutions of higher education. He ensures that Ministerial directives are communicated and applied, and in exchange he ensures that the Minister is informed about the

[12] An administrative district of the French National Education system, in which the de-centralised services of the Ministry are grouped under the responsibility of a recteur. France is divided into 28 académies which roughly correspond to regional divisions

operation of these institutions. Furthermore, since the 1968 law, and the law completing it in 1984, he is responsible for co-ordinating universities within the same *académie* and also for co-ordinating higher and other forms of education. He is also vested with a number of individual powers as regards management of part of the teaching staff, investments funded by the State, and student grants. As Chancellor of Universities, the *recteur* has particular responsibility to intervene in and supervise the autonomous institutions, as laid down by the 1968 law amended in 1984. Under the latter, the *recteur* is represented on the governing boards of these institutions and may ask the administrative courts to cancel decisions taken by the authorities of institutions where these decisions seem to be illegal. Finally, in each *académie*, the *recteur* is the chairman and representative of the Chancellery, which is responsible for managing the property with which some institutions entrust it. As such, the *recteur* is the official in charge of the revenues and expenditure of the Chancellery.

The French educational system has by historical tradition always been highly centralised. By deciding to shift some powers and responsibilities hitherto held by the State over to territorial authorities, France has since 1982 undertaken considerable decentralisation, which has radically changed the respective powers of the State departments and the territorial authorities. The contractualisation policy is also aimed at increasing the role of local and regional authorities in higher education.

4.1.3 Higher education institutions

Public universities (EPCSCP)

Under the provisions of the 1984 law on higher education, each component of the university has the power to lay down its own by-laws and structures. Basic structures at the central level are:

- the governing board, (*Conseil d'Administration*) which determines policy, votes the budget, approves the accounts, distributes posts, approves agreements and conventions signed by the university president;
- the scientific council, (*Conseil Scientifique*) which proposes guidelines for research policy to the governing board, and which is consulted on initial and further education programmes, on research programmes and contracts, and on projected creation or change in the diplomas delivered by the institution;
- the council for university studies and university life, (*Conseil des Études et de la Vie Universitaire*) which proposes guidelines on initial and further education to the governing board, prepares measures for student guidance, university social life, students' living and study conditions, libraries, and documentation centres, and may examine requests for authorisation and projects for new branches of study.

These three councils are comprised of elected representatives of teaching staff, research staff, students and the administrative, technical, ancillary and service staff as well as persons from outside the university.

- The president of the university. (S)he is elected by all the members of the three councils. (S)he directs the university, presides over councils, orders expenditure and income, has authority over all the staff, nominates examining boards, and is responsible for the orderly running of the establishment.

- The secretary general. (S)he is appointed by the minister and in charge of the general management of the institution, under the authority of the president.

It is through these three councils, particularly the governing board, that autonomy for the institution is exercised. Three areas of autonomy may be distinguished:
- administrative autonomy: the university is directed by a president who is elected for five years by all the university councils and each of the educational and research units which make it up;
- financial autonomy: the institution manages the budget which is allocated to it by the State, together with its own funds;
- educational and scientific autonomy: within the national framework set out by ministerial decree for each subject, the university alone decides educational curricula, contents, methods and materials, and assessment methods.

At the Faculty level (UFR) the administrative structure consists of:
- Director, who is chosen by the faculty council and one of the academic staff of the faculty;
- Faculty Council, consisting of chosen representatives of academic staff, non-academic staff, students, and external people. The Faculty council defines the teaching and research programme.

Institutes and schools that are attached to the university (article 33 of the 1984 Law) have financial autonomy. The administrative structure consists of:
- Director. At an institute, the director is chosen by the counsel, at a school, he is appointed by the minister (on advice of the council). The director has authority over the income and expenditure and the staff.
- Council. Consists of chosen representatives of academic and non-academic staff, students and external persons (30-50%). The council defines the teaching and research programme.
- President of the council. At institutes or schools, the president of the Council is an external person chosen by the council.

Although universities may hire staff, they may not offer tenure. Tenured positions can be offered only by the state (1984 Law, art 53).

Schools and Institutes outside universities

The administrative structure of these 12 institutions consists of three elements:
- Director. (S)he is appointed by the minister and charged with the management of the institution. (S)he has similar prerogatives as a President of a university.
- *Comité de direction*. This committee consists of the directors of the departments and assists the director.
- Governing board, (*Conseil d'Administration*) which determines policy, votes the budget, approves the accounts, distributes posts, approves agreements and conventions signed by the president.

The ENS, and other Grandes Écoles (art. 37 of 1984 Law)

For 14 *Grandes Écoles*, 4 ENS and 5 French schools abroad there are no detailed rules regarding their governance structure. Each institution has its own regulations.

The EPA (Établissements Publics à caractère Administratif)
Two categories can be distinguished: the EPA attached to a EPCSCP and autonomous EPA. The institutions in the first category (13 engineering schools [ENSI], 8 schools for political sciences, two other schools and 30 IUFMs) have similar governance structures as the institutions mentioned above (although the IUFM has a scientific and pedagogic council in addition to a director and a governing board).
The autonomous EPA (17, most of them engineering schools) have no general regulations regarding their governance structure.

4.1.4 National higher education and research board (CNESER)

The National higher education and research board makes the decisions pertaining to qualifications, recruitment and the career of professors and principal lecturers. The board is made up of groups of disciplines, each group including a group commission, and of departments - corresponding to each of the disciplines. Each group commission and each department includes, in equal parts, representatives of professors and related staff, as well as representatives of principal lecturers and related staff. At least two thirds of the members of each department are elected by their peers. The other members are directly appointed by the minister. Members of the Board are elected or appointed for a period of four years. The examination of individual questions relative to recruitment is undertaken exclusively by the representatives of teachers-researchers and related staff holding an office at least equal to the vacancy applied for. Similarly, the examination of questions relative to promotion is undertaken exclusively by the representatives of teachers-researchers and related staff holding an office, which is at least equal to the vacancy applied for.

4.1.5 Advisory councils

The two main advisory bodies, namely the Higher Council for Education (CSE) and the National Curriculum Council (CNP) were created by the framework law of 1989. Their purpose, powers and composition were set out in the law of 1990. Their role is to inform the Minister and his or her departments, and to give them advice when important decisions must be taken in teaching, education, and management of staff.

In the field of research there is a number of advisory councils, advising the minister of research. The major ones are the *Conseil supérieur de la recherche et de la technologie* (CSRT*), the Conseil national de science*, and the *conseil national pour un novelle développement des sciences humaines et sociales.* The councils consist of scholars in the field but also of partners of research like representative of the labour market, industry and the regions. These councils advise the minister regarding his research policy and on the research budget plan.

The National Council of Universities (*Conseil National des Universités*, CNU) plays an important role in the recruitment of tenured academic staff at public universities.

The *Conférence des présidents d'univeristé* (CPU) was created by the minister for higher education as a reaction to the increased responsibilities universities got after 1968. The need to coop with the enhance autonomy grew after the reform of 1984 and the contractualisation policy.
The CPU is a platform for university presidents and wants to be the prime negotiator of ideas concerning the future of higher education and research. In addition, the CPU strives to enhance professionalisation of and to provide services to universities. All French universities are member of CPU.

4.1.6 CNOUS/CROUS

The national centre for university and school life (*Centre National des Oeuvres Universitaires et Scolaires*, CNOUS) was created by a law of 1955. The object of the CNOUS is to promote improved living and working conditions for students and pupils in higher education both in France and abroad. For this purpose it guides, co-ordinates and supervises the action of the twenty-seven regional centres for university and school life (CROUS), which act in the following areas: a) information and reception; b) accommodation (management of university halls of residence); c) catering (management of about 440 university restaurants); d) grants (administering the grants provided by the Ministry of Education); e) social action (emergency loans, and counselling to students in difficulty); f) contacts between students and businesses; g) reception of foreign scholars. The CNOUS also administrates the EU-exchange programmes like Socrates, Leonardo and Tempus. The CNOUS board of directors, which is chaired by a person appointed by the Minister of Higher Education and Research, is composed of twenty-six members: eight representatives of the State, seven persons chosen by the Minister, eight representatives elected by students and three elected by staff (CNOUS 2001).

4.2 Who decides on the important issues?

4.2.1 (New) programmes

The offering of study programmes leading to national diplomas is strictly regulated by the French government. The basis for this regulation is the Higher Education Act of 1984 (*Loi Savary*). This Act contains several general principles and procedures concerning the development, assessment and authorisation of national programmes. The national programmes are based on national profiles (*Maquettes nationales*), which are specified in regulations oriented towards specific academic disciplines or fields of study. The national profiles define a common framework: duration of study, minimum hours of teaching required, content requirements (mainly with regard to subject balance), minimum entrance level, status of teachers involved, and general principles on the assessment of student performance. The national profiles are designed in close consultation with academic experts; in case of professionally oriented profiles, also representatives from professional and employers' organisation may be consulted. The Minister of Education formally determines the contents of the *Maquettes*. In 1992, the conditions for universities to offer national diplomas were redefined and simplified, and the number of diplomas offered was reduced significantly. As a consequence, universities have more freedom nowadays to develop and design national programmes and implement demands for specific programmes to meet regional needs, but still about 75% of the content is prescribed in governmental regulations. The diplomas conferred also continued to be national qualifications thereby preserving outward appearances.

A university has to obtain permission (*habilitation*) from the Minister of Education to introduce a new national programme. This *habilitation* procedure includes several bodies at the national level who examine the proposal. The relevant office within the Ministry first examines the conformity of the application with the national profiles. Substantive judgements are made by several advisory bodies: the *Mission Scientifique*, the *commission sectorielle*, and the CNESER, the national council for higher education and research. The Minister of Education takes the final decision; s/he is not obliged to follow the advice given. The approval to offer a national programme is granted for a period of four years. Universities are not allowed to adjust curricula within this four-year period.
In addition to national degrees, French universities may offer their own university degree courses, which lead to the so-called *Diplômes d'Université*. These programmes do not duplicate the programmes offered for national diplomas, but are intended to reflect local or regional interests and demands. Universities are free to establish their own requirements for admission, the length and content of courses, the title of the degree and diploma awarded, and the level of tuition fees. The French government does not recognise the diplomas awarded as valid qualifications to apply for a position in the public service, nor does it fund these programmes. Most university programmes are short, specialised courses.

The programmes offered by the IUTs and some longer technical programmes offered by universities (*Maîtrise d'Informatique Appliquée à la Gestion des Enterprises*, Management Information Studies) are governed by so-called *Commissions Pédagogiques Nationales*. These national pedagogical committees are appointed by the French government but comprise

university and employer representatives. Their task is to advise the Minister of Education on the content of new study programmes and adaptations of existing technical programmes to changing professional and technological circumstances. A similar construction exists for other technological programmes, offered by IUPs and universities (*Maîtrise de Sciences et Techniques*). These committees are called *Commissions Consultatives Nationales* (CCN); their members are representatives from universities, from the Ministry and from business or industry. These committees have to advise the Minister on curricular matters, ensure co-ordination and consistency of these programmes within the overall programme structure, and ensure that the content of the programmes is adjusted to the needs and demands of the business sectors involved. Technical programmes offered by the IUTs, IUPs and universities all lead to national qualifications. Therefore, these institutions have to obtain approval from the Minister of Education to offer new programmes in these fields.

Short technical courses are also offered by the *Sections de Technicien Supérieur* (STS). These institutions award the *Brevet de Technicien Supérieur* (BTS). The STSs operate within the upper secondary school system (*Lycées*) and have no curriculum autonomy at all. The curriculum is designed by the previously mentioned *Commission Consultative Nationale*. Institutions have to obtain approval from the regional representative of the Minister, the *Recteur*, to offer a new BTS degree. The *Recteur* bases his approval on an analysis of the needs of the local and/or regional labour market for the new programme.

Engineering colleges or schools (which can be found both in the public or state sector and in the private sector) are free to design their own curricular programmes, but have to be authorised by the *Commission du titre d'ingénieur* (CTI) to confer the title of engineer. This title is protected and recognised in collective agreements between employers' organisations and labour unions. The previously mentioned committee, comprising representatives of universities, industry and professional organisations, compares the proposed new engineering programme with other programmes offered.

All programmes not listed above are offered without ministerial approval. Although without ministerial approval, the diplomas conferred are in most cases recognised as valid qualifications by labour market parties. Examples are various programmes offered by the *Grandes Écoles*, mainly in the field of business and economics (as described above, the title of engineering is protected and consequently engineering programmes are accredited by a national committee). The *Grandes Écoles*, which are under direct administrative control from various Ministries, are given complete pedagogic freedom with regard to the design and introduction of most of their other programmes. The best institutions nevertheless run a private system of mutual accreditation. The French government is not involved at all in these cases.

4.2.2 Research priorities

The broad goals of national research policy are defined by an interministerial committee on scientific and technological research (*Comité Interministériel de la Recherche Scientifique et Technologique*, CIRST). The minister of research has to elaborated and implement these priorities. (MEN, 2000b, p.68).
In the contracts the state closes with the higher education institutions, the institutional research policy is also addressed. In the contract the goals, plans and means regarding the research at the institution are specified.

4.2.3 Staff (hire and fire)

The management of higher education staff is the responsibility of the Ministry. Nevertheless, some management actions are delegated to *recteur*s or to university presidents and heads of higher education institutions. Decisions pertaining to the career of university professors and principal lecturers are examined by the National Universities Board.
Access to the profession of a higher education teacher with tenure is through competitive examinations. University professors are appointed by decree enacted by the President of the Republic.
Higher education teachers are category A civil servants and are as such governed by the general status of the public service. In addition, they enjoy a certain number of traditional guarantees, designed to make them independent and ensure their freedom of expression. For example, decisions to hire or promote them are made based on proposals from bodies exclusively made up of their peers. Principal lecturers and professors (*professeurs principaux)* are known as teachers/researchers due to the dual nature of their duties: they perform research and teach at the same time. The corps of professors comprises a second class with six ranks, a first class with three ranks and an exceptional class with two ranks. The senior lectureship corps comprises a second class with three ranks, a first class with six ranks and an unclassified category with six ranks. Principal lecturers start as provisional civil servants before they are given tenure. The temporary teaching staff (ATER) and graduate assistants are employees on contract.

The promotion of professors and principal lecturers includes promotion by rank or class. Principal lecturers and second and first class professors achieve rank promotion through seniority. Promotion of professors from second class to first class is through selection based on the number of vacancies. It is pronounced after the institution's scientific board has expressed its opinion of a proposal made by the National Universities Board by ministerial decree. Promotion of professors from first class to exceptional class and promotion from first to second rank of the exceptional class is also through selection. Promotion of principal lecturers from second to first class is through selection from amongst second class principal lecturers who have reached third rank. Each year, the Board of Governors of each university draws up a list classifying principal lecturers likely to be promoted. These lists are transmitted to the relevant departments of the National Universities Board. The boards meet in restricted session to examine the said lists. They then transmit to the Ministry, proposals for promotion, which must comply with the classification order adopted by the university's board of administration. Appointments of principal lecturers to first class are made public by a decree from the Minister

for Higher Education. Promotion of principal lecturers from first class to unclassified takes place under similar conditions. Only principal lecturers who have reached the fourth rank of first class and have worked for at least five years as principal lecturers or junior lecturers qualify for this promotion.

4.3 Policy issues

4.3.1 Contractualisation and shifting control

During the 1990s, the original contract policy, started in 1989, changed and lost touch with the initial goals. Driven by developments like the strong growth and diversification of the demand for higher education system and the strong international competition for 'brains', the contractualisation was relaunched in 1998 to restore the original ambitions. The state saw the new policy as a way to create a profound dialogue and to stimulate the link between objectives and resources. The policy had to give institutions more freedom to articulate their own ambitions and to use their resources to realise them. Furthermore, the contracts were seen by the state as a way to enhance innovation; institutions are stimulated to experiment and to go beyond the old frameworks.

The process was set out based on two major elements: institutional plans and contracts between the institution and the state. The institutional plans are the center part. Public higher education institutions have to specify in that plan their ambitions regarding teaching and research. Ambitions regarding the national and international position of the institution, regarding the studentbody and teaching methods, regarding the student welfare, regarding their research policy, and regarding the relationship between teaching and research. In addition, the plans should also specify the consequences these ambitions have for the operation of the institution, especially regarding human resource management and internal allocation mechanisms of financial resources. This plan is the starting point for the negotiations between the institution and the state. In the first round of negotiations, the ambitions of the institution are confronted with the plans and views of the state. As a result of this round, a list of issues is drafted that is discussed in more detail in the second round. In the third round the negotiations will lead to a contract in which the commitments of the institution and the state for the next four years are specified (Ministère de l'Éducation Nationale de la Recherche et de la Technologie 1998).

In this contractualisation policy, the role of the institution is much stronger than it was. Not only because it knows now for the next four years what its resources will be and because it has got more autonomy in using those resources but also because the institution as such is the contract partner. In French universities, the central administration, and the president in particular had a strong position on paper. However, in reality, its position was weak due to the strong position of the faculties. Discussions, consultations and negotiations used to be between individual faculty members and the ministry, leaving central administration with a marginal role. Based on a extensive study in four universities, it was concluded that the position of central university bodies and the president has become more important and that institutional policy and planning have grown (Chevaillier 1998; Mignot Gerard 2000). What influence the contractualisation policy has on this process is not clear, but both changes are in line with each other.

The Bologna process and national degrees

With the advent of the LMD structure, the era of the *maquettes nationales de diplômes* has ended. In that era the Ministry decided a priori the degrees and programmes leading to those degrees. The national recognition of degrees remains in place, but the higher education institutions now have the initiative to submit new programmes and degrees. These proposals are first evaluated by experts from the ministry and then validated or recognized by the CNESER. The programmes are re-evaluated every three years.

4.3.2 The plans on a new university law

Since 1968, French universities have become 'autonomous' institutions, according to the law. In practice, university autonomy is still limited. Around 80% of the budget is directly controlled by the state and the leeway for institutional human resource management is almost non existing. Since 1984, with the *loi Savary*, several attempts have been made to increase the de facto institutional autonomy but conflicts of (vested) interests of all stakeholders (universities, students, academic staff, unions) frustrated that process. The most recent attempt that failed was started in May 2003 when minister Ferry presented a plan to increase autonomy of universities to modernise the universities and allow them adapt to new challenges of international competition, more professionally oriented education and partnerships with local authorities. The reforms, in line with the government's decentralisation policies, would give universities greater financial autonomy (with global budgets to include spending of staff). The age of staff eligible to vote for a university's president was also to be broadened and it would become easier to amend university statutes. The reforms aimed also at developing closer links between universities and regions.
The plan was to present it to the national assembly at the end of June 2003, but it was postponed in May (Marshall 2003). After strikes in November, the plan was further criticised (even by president Chirac). The students were afraid the competition between universities (they thought the plans would invoke) would lead to a raise of fees, more entrance selection and the loss of the national character of degrees. University presidents opposed these criticisms as misconceptions and manipulations. They argued that universities need to modernise. Ferry promised after this a new plan in December 2003, which was discussed during the first months of 2004. He stressed that none of the alleged threats would happen and that the competition he wanted to stimulate was between French and American universities and not between French universities.

After the elections of the new president and the installation of a new government in May 2007, the issue was back at the top of the agenda. The minister of higher education proposed a new law on the autonomy of universities. This proposal was discussed with the universities and the unions, before it was send to Parliament, during the Summer of 2007.

The reform was described as a major reform of the organizational structure of (public) universities and their mission and authorities. The reform was proposed to address the 'poor' condition of French higher education. The drop out rates in the initial year at universities were very high, the position in international rankings of French universities are poor, the attractiveness of French universities on the international student market was poor and the resourcing of universities was below all standards.
In addition, the governance structures of universities were seen as highly efficient, since they lack transparency and openness, as well as executive power.

Universities will get a new mission. In addition to teaching and research, the proposed law introduces educational guidance (*orientation*) and transition to the labour market (*insertion professionnelle*) as a new mission.

To become successful at these missions, all (public) universities should acquire new responsibilities within the next five years. These responsibilities refer to the management of the whole budget, the human resources and the possibility to own their buildings and other real estate.

- Universities will be allowed to hire and fire own staff and are allowed, although under strict conditions, to determine the wages of their own staff.
- Universities will be allowed to create their own foundations.
- For those universities that want to, ownership of real estate will be transferred from the state to the university.
- The state will fix the broader spending categories in the multi-annual contract with each university separately (the *contrat quadriennal*).
- The state will continue to set the tuition fees and uphold the national character of the degrees offered.

- The *Conseil d'administration*, that used to consist of around 60 members, will be reduced to around 20 to 30 members; 8 to 14 representatives of the academic staff, 7 to 8 external members, 3 to 5 student representatives and 2 to 3 representatives of support staff. This has to give the university (and its president) more executive power and make it more responsive to external demands.
- The university president will be elected for a four year period (was 5) with an option second term (that did not exist before).

- Students will become free to choose the university they want (they used to be regional limitations to the choice of university).
- Students will benefit from an 'active counseling'.
- Students may be 'employed' by the university as tutor or library assistants.
- Access to master programmes will not become selective, as was proposed in a preliminary version of the proposal.

The proposed law on the autonomy of universities is seen by the government as the foundation of a wider reform process. This wider reform process is planned to proceed along five lines:

1. Student support and campus life
2. Improving the career options for university staff
3. Improving the facilities for teaching and research
4. Improving the attractiveness of academic careers
5. Lower the drop out rate in the first cycle and making the Licence a viable degree on the labour market.

For the whole reform process, a budget of € 5 billion is planned for the period 2007 till 2012. This budget includes resources for universities, expenditure on students and fiscal measures for enterprises.

5. Quality of higher education

5.1 Teaching

Since 1989, each higher education institution has been required to carry out a self-evaluation of its strengths and weaknesses. The autonomy of universities is designed around the contract signed between the State and the institution, and the assessment of this prior evaluation. Autonomy also implies evaluations after the event. In the renewed contractualisation policy, the need for (self)evaluation is stressed even more.

A National Committee for the assessment of public institutions for scientific, cultural and vocational education (CNE) was created by the law of 26/1/1984. The law of 10/7/1989 transformed this Committee into a financially autonomous, independent administrative authority authorised to define its own working framework. The CNE is made up of seventeen members, including the chairman appointed for four years renewable by a decree passed by the Council of Ministers. It is responsible for examining and evaluating all the activities of universities, schools and institutions under the tutelage of the Minister for Higher Education. It also has the power to assess institutions dependent on other ministries, and to carry out horizontal assessments per subject. Furthermore, it can create thematic commissions on all questions concerning the tasks of State higher education. CNE activity concerns institutions, not individuals. The members of the CNE charged with an assessment mission may appoint external experts to assist them. The examination pertains to the policy of the institution in relation to existing constraints and the objectives aimed at, within the framework of public service and higher education missions. For each institution, the CNE analyses all the activities and means implemented by a policy covering acquisition of knowledge and teaching. It is responsible for the quality control of research and teaching, the training of teachers, further education, the management of staff and departments, the living environment, reception and monitoring of students, local integration and the national and international reputation. To achieve the foregoing, the CNE has published a list of operating indicators. The final report is addressed to the Minister for Higher Education and approved by the CNE in a plenary session. The chairman or the director of the institution being assessed drafts an answer, published in postscript. These documents are then made public. Every year, the CNE alternately publishes a report on a certain number of questions relating to the general policy of higher education (1993 publications included ‘Universities: the search for equilibrium’ and ‘Higher education teachers’), and a report of its activities addressed to the President of the Republic (generally even number years). The possible implementation of the recommendations stemming from the conclusions of the Committee depends on the Minister for Higher Education.

The IUPs are currently supervised by a National Evaluation Commission. This commission is composed equally of professionals and academics, and is assisted by national pedagogical commissions. Its main task is to advise the Ministry of Education on the programs proposed by universities and to follow the progress of the IUPs by a continuous evaluation process. The commission also overviews the national distribution of IUPs in the 16 areas currently accredited and the possibility of creating new fields of specialisation.

The *Commission des Titres d'Ingénieur* (CTI: http://www.commission-cti.fr) evaluates the existing engineering programmes. It also accreditates new engineering schools.

The *Mastère Spécialisé* programmes, offered at certain *Grandes Écoles*, are accredited by a *Commission Mastère*. In 1999 269 programmes were accredited.

The inspectorate (IGAEN) has also a role in the evaluation of higher education institutions, be it a marginal one. It assesses whether the public funds allocated to higher education institutions are used properly, i.e., according to the conditions under which they were granted[13].

The evaluation of the contracts was not very well organised. There were no clear specified quantitative targets or performance indicators and in the negotiations for new contracts there was no feedback from the performance under the old contract, but the situation has improved since the CNE and the Higher Education Inspectorate (IGAENR) have enhanced their co-operation in this respect. The external evaluations focus on both qualitative and quantitative aspects of the performance under the contract. The role of evaluation has become even more central with the implementation of the LOLF in the realm of higher education.

5.2 Research

Currently, research assessment has a complex and multi-faceted character, which results above all in the duplication of Assessment bodies: scientific councils at department level and the specialised scientific commissions of the large research bodies (e.g.: the National Committee for Scientific Research CNRS), the national Committee for Research Assessment (CNER), created in 1989, or even the Higher Council for Research and Technology (CSRT), etc. The desire of the minister of research in 2000 was to create, mainly for the strategic assessment of establishments, a new structure that could take on the current tasks of the CNE and the CNER and merge them under a National Assessment Committee for higher education establishments and research organisations. That wish came true in 2006 when, based on the LOPR, a new evaluation agency (*Agence d'évaluation de la recherché et de l'enseignement supérieur*) was officially established. Its mission is to evaluate research organizations and higher education institutions, the activities of the departments of those organizations, the programmes and degrees offered by the higher education institutions and the procedures to evaluate staff in research institutes.
The AERES is to replace existing evaluation agencies like the CNE, the CNER and the *Mission scientific, technique et pédagogique* (MSTP) of the ministry of research and higher education. AERES is an independent administrative body. The AERES is led by a council that consists of 25 members, both French and foreign, who are experts in their scientific field. Most of them are recommended by the research and higher education community. The actual evaluations are done by evaluation committees.

[13] Code de l'éducation, article L. 241-2

AERES evaluates but does not make any decisions based on the results of the evaluations (Ministère de l'Éducation National Enseignement Supérieur et Recherche 2006).

5.3 Policy issues

There is some concern on the 'mediocre' performance of the French higher education system in international rankings and comparisons (like the Shanghai ranking and the scores in OECD stats like Education at a Glance). In these discussions, the binary of dual structure of universities and *Grandes Écoles* is often (partly) blamed for this. According to Orivel (Orivel 2004), the low position on the ranking can be explained by the fact that universities and *Grandes Écoles* cover only part of the indicators used (prestigious teachers, excellent research). Furthermore, the lack of multidisciplinarity and the small size of *Grandes Écoles*, together with the poor funding of universities contribute to a mediocre ranking of the French system.

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7. List of abbreviations

AERES	Agence d'évaluation de la recherche et de l'enseignement supérieur
ANR	Agence nationale de la recherche
ATER	Attaché temporaire d'enseignement et de recherche
ATOSS	(Personnel) administratif, techniqu, ouvrier, de service, de santé et sociaux
BEP	Brevet d'études professionelles
BT	Brevet de technicien
BTS	Brevet de technicien supérieur
CAFOC	Centre académique à la formation continue
CAP	Certificat d'aptitude professionnelle
CFA	Centre de formation d'apprentis
CNE	Committée national d'évaluation de l'enseignement supérieur
CNER	Comite national d'evaluation de la recherche
CSRT	Conseil supérieur de la recherche et de la technologie
CNRT	Centre National de Recherche Technologique
CNED	Centre national d'enseignement à distance
CNESER	Conseil national de l'enseignement supérieur et de la recherche
CNRS	Centre national de la recherche scientifique
CNU	Conseil National des Universités
CPGE	Class préparatoire aux grandes écoles
CPU	Conférence des présidents d'univeristé
CTI	Commission du titre d'ingénieur
CNOUS	Centre national des œuvres universitaires et scolaires
CROUS	Centre régional des œuvres universitaires et scolaires
CTU	Centre de télé-enseignement
DAEU	Diplôme d'accès aux études universitaires
DEA	Diplôme d'études approfondies
DESS	Diplôme d'études supérieures spécialisées
DEUG	Diplôme d'études universitaires générales
DEUST	Diplôme d'études universitaires en sciences et techniques
DNTS	Diplôme national de technologie spécialisée
DOM	Départements d'outre-mer
DRT	Diplôme de recherche technologique
DUT	Diplôme universitaire de technologie
ENS	École nationale supérieure
ENSI	École national supérieure d'ingénieurs
EPA	Établissement public à caractère administratif
EPCSCP	Établissement public à caractère scientifique, culturel et professionnel
EPIC	Établissement public à caractère industriel et commercial

FNS	Fonds National de la Science
FRT	Fonds de la Recherche et de la Technologie
GDP	Gross domestic product
GRETA	Groupement d'établissements
HDR	Habilitation à diriger des recherches
IGAEN	Inspecteur général de l'administration de l'éducation national
ITARF	Ingénieurs, techniciens et administratifs de recherche et formation
IUFM	Institut universitaire de formation des maîtres
IUP	Institut universitaire professionnalisé
IUT	Institut universitaire de technologie
LMD	Licence-Master-doctorat
LOLF	Loi organique relative aux lois de finances
LOPR	Loi d'orientation et de programmation de la recherche
LP	Lycées professionnels
MIAGE	Méthodes d'informatique, appliquées à la gestion
MS	Mastères Spécialisés
MSG	Maîtrise en sciences de gestion
MST	Maîtrise de sciences et techniques
MSTP	Mission scientific, technique et pédagogique
NFI	Nouvelles formations d'ingénieurs
PAP	Projet annuel de performances
PRES	Pôles de recherche et d'enseignement supérieur
RTRA	Réseaux thématiques de recherché avancée
STS	Section de techniciens supérieurs
U3M	Université du 3ème millénaire
UFR	Unité de formation et de recherche
VAE	Validation des acquis professionnels et de l'expérience