European Commission
Directorate-General for Economic and Financial Affairs

Economic Policy Committee

Efficiency and effectiveness of public expenditure on tertiary education in the EU

ANNEX : COUNTRY FICHE FINLAND

Joint Report by the Economic Policy Committee (Quality of Public Finances) and the Directorate-General for Economic and Financial Affairs

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Brief characterization of the tertiary education system

1. Main features

The Finnish higher education system comprises two parallel sectors: universities and polytechnics. In the Ministry of Education administrative sector there are 20 universities in Finland (from 2010 onwards 16): 10 multi-faculty institutions, 3 universities of technology, 3 schools of economics and business administration, and 4 art academies. There are 26 polytechnics (from 2010 onwards 25), most of which are multidisciplinary, professionally oriented HEIs (HEIs). The provision of higher education in Finland is extensive. The annual student intake in higher education is equivalent to about 27% of the average size of the 19–21 age group. In 2008 there were about 164,000 degree students (111,775 FTE) in universities, about 70,700 in open university (13,000 FTE) and over 132,000 in polytechnic degree programmes. (Further statistics on higher education in Finland are available at the enclosed publication "Higher Education Institutions 2007".)

Parliament passes educational legislation and decides on the overall direction of education and research policy. The universities are governed by the Universities Act and polytechnics by the Polytechnics Act. Each field of study in universities is governed by a separate decree.

The higher education system, which comprises universities and polytechnics, is being developed as an internationally competitive entity capable of responding flexibly to national and regional needs. All the 20 universities in Finland are state-owned and mostly financed from the state budget. The polytechnics are either municipally or privately run and are co-financed by the government and local authorities. Performance management and target outcomes constitute the most important tool for the Ministry of Education in steering the operations of the HEIs. This strategic steering is a means of implementing the national higher education policy.

The main policy guidelines and development targets are determined at a general level in the Development Plan for Education and Research. In addition, the Government Programme provides a strategic framework for the development of the higher education and research system. The coordination Finnish higher education, research and innovation policy takes place at the highest possible political level by the Technology and Innovation Policy Council, chaired by the Prime Minister. The members include the ministers responsible for matters relating to higher education, research, technology and innovation. The other members represent the Academy of Finland, Tekes, (Finnish Funding Agency for Technology and Innovation), universities, business and industries, and employers. It advises the government and its ministries in questions relating to science and technology.

The new Universities Act reforms the legal status of all the Finnish universities starting from 1 January 2010. Under the new legislation universities will be separated from the State; some of the universities will become foundation universities under private law (2) while most become legal persons under public law (14).

1/ TEACHING	**Finland**										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Academic staff per 1000 inhabitants relative to the average	2.23	2.87	3.04	3.12	3.25	3.34	3.42	3.42	:	:	:
Number of students per 1000 inhabitants	48.5	50.9	52.2	53.9	54.6	55.9	57.4	58.3	:	:	:
Number of students (graduate and post-graduate) per 1000 inhabitants	:	:	:	:	:	:	:	:	:	:	:
From public institutions	:	:	:	:	:	:	:	:	:	:	:
From private government-dependent institutions	:	:	:	:	:	:	:	:	:	:	:
From private independent institutions	:	:	:	:	:	:	:	:	:	:	:
Ratio of students to academic staff	21.7	17.7	17.2	17.3	16.8	16.7	16.8	17.0	:	:	:
Number of graduates per 1000 inhabitants	8.37	7.88	7.72	7.31	7.44	7.74	7.9	7.86	:	:	:
Ratio of graduates per 1000 academic staff	3.8	2.7	2.5	2.3	2.3	2.3	2.3	2.3	:	:	:
Standardized recruiter view indicator (graduates' employability as perceived by recruiters)	:	:	:	:	:	:	:	1.03	:	:	:
Standardized peer view country indicator (quality perceptions among peers)	:	:	:	:	:	:	:	1.08	:	:	:
PISA scores	:	:	540	:	:	:	:	:	:	:	:
Average total time spent by students to obtain a BA degree	:	:	:	:	:	:	:	:	:	:	:
Average total time spent by students to obtain a MA degree	:	:	:	:	:	:	:	:	:	:	:
Remuneration of a tenured university professor with 10 year seniority	:	:	:	:	:	:	:	:	:	:	:
2/ RESEARCH											
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Publications per 1000 inhabitants	1.06	1.1	1.15	1.18	1.18	1.24	1.26	1.26	:	:	:
	1998-2002	1999-2003	2000-2004	2001-2005	2002-2006	2003-2007					
Quality of research (position in the ISI citation index)	4.71	4.9	4.97	5.14	:	:					
% of research done in cooperation with industry	:	:	:	:	:	:					
3/ EXPLANATORY FACTORS FOUND RELEVANT FOR EFFICIENCY											
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Main categories of composite indicator											
Funding Rules Indicator	:	:	:	:	:	:	:	:	:	6.2	:
Evaluation Indicator	:	:	:	:	:	:	:	:	:	4	:
Staff Policy Indicator	:	:	:	:	:	:	:	:	:	7.5	:
4/ EXPENDITURE											

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total public expenditure on tertiary education institutions as a percentage of GDP	1.65	1.75	1.70	1.67	1.71	1.75	1.78	1.73	:	:	:
Total expenditure per student (€)	:	:	:	:	:	:	:	:	:	:	:
Private expenditure on tertiary education institutions as a percentage of GDP	:	:	:	:	:	:	:	:	:	:	:
Total expenditure on education as a percentage of GDP	6.26	6.24	6.08	6.04	6.21	6.41	6.42	6.31	:	:	:
Private expenditure on education as a percentage of GDP	:	0.13	0.12	0.12	0.13	0.13	0.13	0.13	:	:	:
Funds from non-public sources as % of total income (fees, earned income, investment, other)	:	:	:	:	:	:	:	:	:	:	:
Tuition fees as average of the cost of tuition	:	:	:	:	:	:	:	:	:	:	:
Percentage of funds received by private government-dependent institutions from public sources	:	:	:	:	:	:	:	:	:	:	:
Total public expenditure on grants, loans, and other programmes to cover education and/or maintenance of students (universal programmes / by categories such as merit or socio-economic status)	:	:	:	:	:	:	:	:	:	:	:

Source: Eurostat, OECD, UOE and Member States.

2. Structure of institutions and funding arrangements

Universities focus on academic research and education, while Polytechnics (Universities of Applied Sciences) are professionally oriented HEIs. In addition to their educational role, polytechnics conduct R&D that serves teaching and the world of work. Both sectors are required to interact with the surrounding society. The model of administration and funding is different. The universities are maintained by the state, while the polytechnics are run by municipalities, joint municipal bodies or foundations.

(i) Public institutions:

Universities (from 1.1.2010 universities will become independent legal persons operating either under universities Act (558/2009) or the Foundations Act)

All the 20 universities in Finland are currently state-owned and mostly financed from the state budget. Their operations are built on the freedom of education and research and autonomy. Total university state budget is EUR 1.7 billion.

The funding is allocated through the performance management process. The principle underlying management by results is that the targets set for institutional activities and the resources needed for their implementation are determined in negotiations between the

Ministry of Education and each university. The financing is allocated to the universities as a block grant to be used at their discretion. The steering system, in which the Ministry mainly has a strategic role, highlights performance evaluation and incentives. Decision-making powers have been devolved to universities, and emphasis is on university management.

From 1.1.2010 onwards the public universities will be independent legal persons. The public universities may undertake commitments, obtain rights in their own name and possess movable and immovable property. A university may pursue business activities which support the performance of their mission. The universities will be answerable for their commitments with their own funds and have the rights to pursue and defend litigation in court.

The mission of the universities is to promote free research and academic and artistic education, to provide higher education based on research, and to educate students to serve their country and humanity. In carrying out their mission, universities are expected to promote lifelong learning, interact with the surrounding society and enhance the impact of research findings and artistic activities on society.

The criteria for state funding to be allocated for the statutory duties of the universities are laid down in the Universities Act. Further provisions on the calculation and distribution of funding as well as on the factoring in of the rise in the cost level are issued by Government decree. On the basis of the Universities Act and the Government Decree, the Ministry of Education will make the decision on the calculation criteria for formula-based state funding.

(ii) Private government-dependent institutions:

Polytechnics (Universities of Applied Science)

The polytechnics sector is still fairly new. The first polytechnics started to operate on a trial basis in 1991−1992 and began to be made permanent in 1996. By 2000 all polytechnics were working on a permanent basis.

Polytechnics are municipal or private institutions licensed by the government. Polytechnics Act (2003/351) decrees that an authorisation to run a polytechnic can be granted to local authorities or a joint municipal body (municipal federation) as well as to private organisations (a registered Finnish limited company or a non-profit foundation). The concessions are granted by the Government. Some polytechnics are run by local authorities, but the majority by joint municipal bodies. The trend is to reform the ownership structures towards private ownership (foundations or companies).

Private ownership separated from direct municipal involvement means less municipal guidance. The form of independent educational corporations makes it possible to adopt the purchaser-provider model in Finnish polytechnic institutions more widely. This model, in

turn, reflects the trend in the Finnish public sector to separate ownership and performance. It is also an important precondition to outsourcing of support services in polytechnics.

The state authorisation determines polytechnic's educational mission, fields of education, student numbers and location. Polytechnics have autonomy in their internal affairs.

The contracts governing the operation of the polytechnics are tripartite agreements between the organisation running the polytechnic, the polytechnic itself and the Ministry of Education.

The polytechnics are part of the government transfer system. This means that they are included in the local basic services budget alongside comprehensive and upper secondary schools and vocational institutes, unlike the universities, which are outside the basic services budgeting and totally state-financed.

The total state funding for polytechnics is EUR 390 million, with EUR 490 million coming from the local authority or private owner organisation.

Level of pedagogical, scientific, and financial autonomy

Universities

According to the University Act, universities have autonomy and freedom of research and determine their own decision-making systems independently. Further provisions pertaining to the degrees awarded by the universities, the objectives of the degrees, the structure of the studies, other study requirements, and the degrees to be conferred by each university (educational responsibility) are (and will be even after 1.1.2010) enacted by Government Decree.

Provisions pertaining to the status of university degrees in the system of higher education degrees are enacted by Government Decree. Provisions pertaining to a more specific distribution of educational responsibilities among the universities, specialisation fields and programmes, and the fields and programmes on offer in each university are a the Ministry of Education decree based on the proposal of the university.

Polytechnics

The government authorisation of a polytechnic lays down the educational mission, fields of education, student numbers and location.
Under the Polytechnic Act, the polytechnics have autonomy in their internal affairs. The administration of polytechnics, only loosely regulated in legislation, is largely left to the maintaining organisation running the institution. The Act provides that each polytechnic must

have a board and a rector who are responsible for the internal administration and rules of a polytechnic institution.

The maintaining organisation decides on strategic development and adopts the action and economic plan and budget. The autonomy of the polytechnic vis-à-vis the maintaining organisation is largely determined by the funding decisions taken and targets set by the latter.

Ties to regional and local authorities, to business

Universities

The universities currently operate as government accounting offices. In funding terms, there are no links between universities and regional or local authorities, but the regional and local authorities are important interest groups for the universities. With a view to interacting with regional and local authorities, universities set up advisory or consultative bodies on a voluntary basis.

Polytechnics

As a result of the municipal funding and other regional or local ownership structures, polytechnics have close links with local authorities. The tripartite agreement process, through which operational targets are set and resources allocated, brings a strong local and regional aspect to polytechnic management.

3. Governance and regulatory framework

Steering of the universities before 1.1.2010

The Ministry of Education is responsible for matters relating to education and research in its sector and for their appropriate functioning and steering. The ministry safeguards operating conditions through financing and steering, especially by means of structural development and systematic monitoring and evaluation of the operations. The steering focuses on the statutory duties of the universities.

The key element in relations between the Ministry of Education and the universities is steering based on financing, legislation and information. The key means to this end include annual performance agreements concluded by the Ministry of Education and the universities, a feedback and monitoring system, and especially the KOTA database on universities.

Trough performance steering, the Ministry of Education advances the key policies set by Parliament and the Government. The agreement procedure ensures that the agreed targets support the strategic development of the entire university system and are adequately informed by university strategies and profiles.

The aim of the ongoing university reform is to increase the autonomy of the universities, to make them independent legal persons, and to create a level playing field for them with the most successful international universities. According to the new Universities Act, the universities currently, which currently operate as Government accounting offices, will become corporations under public law or foundations governed by the Foundations Act (Aalto University and Tampere University of Technology). The Act contains provisions on the functions and administration of the universities, the financing and steering of operations, and university research and teaching, students and personnel.

The growing autonomy and financial responsibility will give the universities an incentive to organise their operations in a more effective way. The key aims of the reform and structural development are to enhance the quality of teaching, develop study processes and raise the level of research. The operations both the public and foundation universities will be primarily funded by the state and the universities will continue to perform the public duty assigned to them in legislation.

University steering after 1.1.2010

Most (14) universities will be corporations under public law (public universities) after 1.1.2010. Two universities will be governed by the Foundations Act (109/1930) (foundation universities). University autonomy will be increased with a view to securing the freedom of higher education. Autonomy entails the right to decision-making in matters relating to internal administration. The universities will have an opportunity to give their opinion on legislation concerning them at the drafting stage.

The current steering procedures can, for the most part, be applied to the new-form universities operating as independent legal persons. The aim is to streamline the steering process, with special emphasis on the long-term nature of the objectives in the sector and on the autonomous decision-making of HEIs. With a view to streamlining the steering process, the performance agreement periods will be extended and project applications and reporting renounced.

The missions and educational responsibilities of the new universities and their right to award degrees will continue to be governed by legislation even after 2010.

The universities operating as legal will continue to be state universities only in the sense that they continue to perform a public mission. The rationale for public funding is that they carry out an education and science policy task which belongs to the responsibilities of the State of Finland and which generates collective good and social capital that serve the interest of the country. The legal personality, mission and responsibilities of the public universities are laid down in the Universities Act (558/2009).

The universities will continue to be communities composed of university teachers, researchers, other personnel and students. In the public universities will follow an internal procedure in electing the boards.

Universities governed by the Foundations Act

Similarly, the foundation universities will perform a statutory public mission. The establishment and operations of the foundations are governed by the Foundations Act (109/1930). The foundations must have rules which lay down the name, location and purpose of the foundation, the property to be transferred to it, the number of trustees and auditors, their term of office, and the procedure for appointing them.

Under the Universities Act, a foundation university has a board, a rector appointed by the board and an academic affairs committee. The board of the foundation has seven members, who must represent the highest national and international expertise in the fields of science and art in the remit of the foundation and in societal life. The board decides on the strategy, operational and financial matters and far-reaching plans. The foundation board elects the rector to lead the operation and activities and direct the academic and art community it forms. In addition, the board determines the responsibilities of the rector within the scope of the rules of the foundation, elects the rectors of the constituent universities, establishes and closes down educational and research units, decides on the annual budget and action plan, adopts the annual report and financial statement of the foundation, submits an annual account on the operation of the foundation and decides on the rules and other corresponding regulations.

Polytechnic governance

Polytechnics are municipal or private institutions The government grants an authorisation to provide education, which determines their educational mission, fields of education, student numbers and location of the polytechnic. Polytechnics have autonomy in their internal affairs. The Polytechnics Act (351/2003) lays down the operation, steering and evaluation, administration, education provision and degrees, students, teachers and other personnel, and financing of the polytechnics.

The Government Decree on Polytechnics (352/2003) contains more detailed provisions on the educational mission, administration, degrees and requirements, teaching arrangements, instruction and students, and the qualification requirements of the personnel.

Polytechnic admissions are governed by the Government Decree on the joint polytechnics application system (353/2003, with subsequent amendments).

Polytechnics can charge fees for education under certain conditions, which are laid down in the Government Decree on the principles of fee-paying polytechnic education (354/2003).

The Act on Vocational Teacher Training (356/2003) provides for the training of polytechnic and vocational teachers. The relevant Decree (357/2003) contains more detailed provisions on teacher education and teacher educators.

4. System's strengths and weaknesses

The possibilities and methods to develop higher education as a whole in a coherent manner are undermined by the different kind of organisational structures in the polytechnic sector and universities. Accordingly, the funding system of the sectors is different as universities are funded straight from the state budget whilst polytechnics' funding is part of the government transfer system where municipality funding based on number of students and the funds are paid directly to the organisations running polytechnics.

Explanatory factors for efficiency

1. Staff Policy

Universities

The Government's Productivity and Structural Development Programme launched (2005-) requires that the existing human resources in universities be reduced and reallocated to improve the efficiency. The programme covers all government sectors. The introduction of a new salary system, which was agreed upon by the government and professional unions in 2005 concerns university personnel.

In addition, an essential aim in the strategic policy is to improve the competitiveness of HEIs as employers. Equity and improved job satisfaction are essential policy goals included in the performance agreements for the period 2010-2012.

Polytechnics

Polytechnics' staff policies are more heterogeneous because as the employment contracts are negotiated between the unions and polytechnics as of 1.1.2010 (Polytechnics Act 564/2009 is about to change the current situation where the employment contract are between the unions and owner organisations). The maintaining organisation employees the top level management, rectors and vice rectors only.

1.1. Hiring/Firing

Vacancies in permanent posts are filled on a competitive basis. Currently the recruitment in polytechnics is governed by the regulations of the maintaining organisations. Polytechnics Act 564/2009 which comes effective 1.1.2010 changes the situation the way that the recruitment will be polytechnics' duty.

In privately run polytechnics the rector has wider powers in the recruitment of personnel than in publicly owned polytechnics. The recruitment procedures are different for different staff categories. The most strictly regulated procedure is the appointment of university professors.

The Polytechnics Act (351/2003) sets out the duties of a polytechnic and the type of staff which it must employ. The Polytechnics Decree (15 May 2003/352) defines the qualification requirements: the teaching staff must have an academic degree, the teachers of professional subjects must have a minimum of three years of work experience, and the requirement for principal lecturers is a licentiate or a doctorate. Lecturers or principal lecturers must have a teacher qualification of a minimum of 60 ECTS credit points. Those who have no such qualification must obtain is within three years of their appointment.

1.2. Wages

Universities and polytechnics

Universities and most polytechnics have adopted a scheme in which the teaching staff are expected to work 1,600 hours annually.

Universities

Since the introduction of the new performance-based salary system in 2006, all posts and their holders have been evaluated by the staff member and the head of unit. Unlike the former seniority-based salary, the new salary has two components; one based on post rating and the other on the employee’s own performance. The salary is based on the job requirements and the individual employee's performance. The universities apply the system at the institutional level. The new salary scheme makes for individual advancement on the professional career.

Polytechnics

There are different salary schemes in the polytechnic sector, depending on the legal status of the owner organisation and the collective bargaining contract**.**

Universities' personnel policy after 1.1.2010

The employment relations of the university personnel will be based on a contract of employment. The employees and the terms of employment are governed by statutes and terms agreed in a collective bargaining agreement and in the contract of employment. The fact that the universities become employers enables them to devise their human resources policies independently of the government policy (incl. salaries). The possibility to pursue their own HR policy will enhance their competitiveness and make for a more flexible and individualised HR policy, which enables the employees to negotiate the content of their own employment contracts. The flexibility will facilitate the hiring of world-class researchers and teachers form abroad.

The situation of current personnel will be secured in the transition. In it the employed persons who were born before 1980 will remain within the state pensions scheme as long as they are in the university's employ. Other personnel and those to be recruited will be covered by a private work pensions scheme.

The statutes governing civil service and private employment contracts are fairly similar at present. In both, the premise is a permanent employment relation, and the legitimate grounds for discharging a person are nearly the same.

2. Output flexibility

2.1. Course content and exams

The university autonomy is laid down in legislation. They can decide independently on the content of education, the teaching methods used, evaluation and trials in education. The Decree on university degrees only determines the structure and extent of degree education and the general objectives of education, and the language proficiency to be achieved.

In polytechnics, degree education is arranged as programmes. The Ministry of Education decides on the programmes by determining the degree and the name, field of education and extent of the programme. The Polytechnics Decree defines the degrees awarded by the polytechnics, their overall structure, the general objectives of education, and the language proficiency to be achieved. The teaching content, the teaching methods, evaluation and educational trials are up to the polytechnics.

2.2. Supply of short programmes and other courses

The Finnish universities and polytechnics do not have the three-year programmes mentioned above.

2.3. Range of choice

The Finnish system of academic education gives students a lot of freedom to plan and schedule their studies. This means that planning the schedule for an academic year, i.e. choosing the subjects and courses and keeping the schedule intensive throughout the studies, requires a lot of activity and responsibility on the part of the student. New degree students will be given information on how to schedule their studies by the appropriate faculty. Personal study plans are also utilised in student counselling and planning of studies. Recommended year of completion for a course unit is usually given in the curricula guides in order to facilitate students in planning their studies. Students are moreover recommended to consult the guidelines in their own departments regarding the order in which studies are to be taken.

The Government Decree on University Degrees (794/2004) defines the objectives, extent and overall structure of degrees. The universities decide on the detailed contents and structure of the degrees they award. They also decide on their curricula and forms of instruction.

The requirement for higher education in Finland is the matriculation examination, an upper secondary vocational qualification or other vocational qualification of at least three years' duration. In addition, the polytechnic degree gives general eligibility for universities. Universities also admit applicants who have completed open university studies.

Polytechnics accept applicants who have a upper secondary education leaving certificate or a vocational qualification. Students apply for polytechnic studies in a national application system. The polytechnics determine the admission criteria and arrange student selection and entrance examination at their discretion. The extent of polytechnic degree studies is generally 210−240 ECTS study points, which represents 3.5 - 4 years of full-time study. The requirement for Master's studies in polytechnics is a Bachelors' level polytechnic degree and at least three years of work experience. The polytechnic Master's, which is 60-90 ECTS points and takes 1.5-2 years, is equivalent to a university Master's in the labour market.

Admission Requirements

The Finnish matriculation examination provides general eligibility for higher education. The same eligibility is also provided by the International Baccalaureate (IB), European Baccalaureate (EB) and Reifeprüfung examinations.In addition, those with a Finnish polytechnic degree, a post-secondary level vocational qualification or at least a three-year vocational qualification also have general eligibility for university education. Universities may also admit applicants who have completed Open University studies required by the relevant university or who are otherwise considered by the university to have the necessary skills and knowledge to complete the studies.

People who received their schooling in another country may be admitted if their qualification gives eligibility for corresponding university studies in that country. Finland has ratified the Convention on the Recognition of Qualifications concerning Higher Education of the European Council and UNESCO-CEPES (so called Lisbon Convention) and signed the Nordic Convention on Admission to Universities.

There is restricted entry, ‘numerus clausus’, to all fields of study. As applicant volumes far outweigh the number of places available, universities use different kinds of student selection criteria. Usually the selection is based on previous study record and an entrance exam. The general requirement for admission to polytechnics is completion of general upper secondary education or vocational education and training. Student selection to polytechnics is mainly based on school achievement and work experience and, in many cases, entrance examinations. Eligibility for second-cycle polytechnic degrees is given by a relevant first-cycle degree with at least 3 years of relevant work experience.

Student selection

A national on-line application system (see 9.6.4.) developed for the student selection of universities was implemented for the first time in autumn 2008. A national joint application, where the main selections of all universities are included, was organised for the first time in spring 2009 by using this on-line application system. The aim is that the on-line system will become the prevalent means of application. A similar on-line application system has been in use in the polytechnic student selections since 2003.

Universities select their students independently and they decide on the field-specific student intake according to the agreed target number of degrees. The numbers are determined in performance negotiations between the Ministry of Education and the universities. There is restricted entry, "numerus clausus’, to all fields of study. As there are many more applicants than there are places available, universities use different kinds of student admission criteria.

Student admission may be based on:

- the grades attained in the matriculation examination (and in the general upper secondary school (Finnish: lukio, Swedish: gymnasium) leaving certificate) together with the results of an entrance examination, which is the most common procedure;
- the results of an entrance examination only; or
- the grades attained in the matriculation examination and in the upper secondary school leaving certificate only.

In addition, some fields may place additional emphasis on work experience, studies, practical training, etc.

Entrance examinations are designed by the university, faculty or department in question to assess the applicants' motivation, suitability and aptitude in the field concerned. The tests are often based on required reading. There may also be interviews or material-based examinations, and students may be required to demonstrate their skills or aptitude. Students without the matriculation examination certificate are usually selected on the basis of the entrance examination.

An admitted student may only accept one student place in a degree programme in a given academic year. The aim is to simplify student selection procedures by means of a joint universities application system introduced in the academic year 2008/2009.

Universities select their own students. Procedures and practices relating to student selection vary from one university and faculty to another. Generally, student admissions are based on the applicants' prior studies and entrance examinations. Universities also offer fee-charging continuing education and open university instruction, which do not lead to qualifications but the credits can be counted towards a degree in later studies.

Polytechnics also set their own admission criteria. Students apply to polytechnics through a national joint application system. Admission is based on applicants' previous education, work experience, aptitude, and interest in the field concerned. Most fields of study set entrance examinations.

The targets for annual intakes are set in the performance agreements between HEIs and the Ministry of Education. In the university sector, only the target output, namely target number of degrees, is defined.

Adult education policy is designed to provide a wide range of study opportunities for the adult population. Finland offers flexible and empowering conditions for individuals' lifelong learning. Universities and polytechnics arrange a great variety of courses and programmes for adults at all levels of formal education, and the provision of liberal adult education is extensive.

In higher education, adults can study in separate adult education programmes offered by polytechnics. In universities there are no specific programmes for mature students (over age of 25), who study in the same groups with young people (excluding tailor-made courses etc,).

With the exception of further and specialist vocational qualifications, adult education and training leading to qualifications is provided free of charge. The government also subsidises other liberal forms of adult education and training intended for adults in order to keep student fees at a reasonable level.

The annual number of participates in adult education and training is 1.7 million, which makes half of the working age population.

Most of the higher education institutions allow their degree students freely study minor subjects interdisciplynary without a separate permission or entrance exams.

Universities

First-cycle university degree

The first-cycle university degree consists of at least 180 credits (3 years of full-time study). The degree is called kandidaatti/kandidat in all fields of study except Law (oikeusnotaari/rättsnotarie) and Pharmacy (farmaseutti/farmaceut). The determined English translation for all these degrees is Bachelor's degree, the most common degrees being the Bachelor of Arts or Bachelor of Science.

Studies leading to the degree provide the student with: (1) knowledge of the fundamentals of the major and minor subjects or corresponding study entities or studies included in the degree programme and the prerequisites for following developments in the field; (2) knowledge and skills needed for scientific thinking and the use of scientific methods or knowledge and skills needed for artistic work; (3) knowledge and skills needed for studies leading to a higher university degree and for continuous learning; (4) a capacity for applying the acquired knowledge and skills to work; and (5) adequate language and communication skills.

Studies leading to the degree may include: basic and intermediate studies; language and communication studies; interdisciplinary programmes; other studies (minor subjects) and work practice for professional development. The degree includes a Bachelor's thesis (6 – 10 credits).

The second-cycle university degree

The second-cycle university degree consists of at least 120 credits (2 years of full-time study). The extent of studies required for a programme leading to the second cycle university degree which is geared towards foreign students is a minimum of 90 credits. The degree is usually called maisteri/magister. Other second-cycle degree titles are diplomi-insinööri/diplomingenjör (Technology), proviisori/provisor (Pharmacy) and arkkitehti/arkitekt (Architecture). The determined English translation for all these degrees is Master's degree, the most common degrees being the Master of Arts or Master of Science. The second-cycle university degree title in the fields of Medicine, Veterinary Medicine and Dentistry is lisensiaatti/licentiat, the English title being Licentiate. The admission requirement for the second-cycle university degree is a first-cycle degree.

In the fields of Medicine and Dentistry the university may arrange the education leading to the second-cycle university degree without including a first-cycle university degree in the education. In Medicine the degree consists of 360 credits (6 years of full-time study) and in Dentistry the degree consists of 300 credits (5 years of full-time study).

Studies leading to the second-cycle university degree provide the student with: (1) good overall knowledge of the major subject or a corresponding entity and conversance with the fundamentals of the minor subject or good knowledge of the advanced studies included in the degree programme; (2) knowledge and skills needed to apply scientific knowledge and scientific methods or knowledge and skills needed for independent and demanding artistic work; (3) knowledge and skills needed for independently operating as an expert and developer of the field; (4) knowledge and skills needed for scientific or artistic postgraduate education; and (5) good language and communication skills.

The studies leading to the second-cycle university degree may include: basic and intermediate studies and advanced studies; language and communication studies; interdisciplinary study programmes; other studies (minor subjects); and internship improving expertise. The degree includes a Master's thesis (20 – 40 credits).

2.4. Numerus clausus

Academic fields into which entry is restricted or rationed by national/regional regulations do not exist.

There is restricted entry, 'numerus clausus', to all fields of study. As applicant volumes far outweigh the number of places available, HEIs use different kinds of student selection criteria. Usually the selection is based on previous study record and an entrance exam. The general requirement for admission to polytechnics is completion of general upper secondary education or vocational education and training. Student selection to polytechnics is mainly based on school achievement and work experience and, in many cases, entrance examinations. Eligibility for second-cycle polytechnic degrees is given by a relevant first-cycle degree with at least 3 years of relevant work experience.

Ministry of Education sets an annual national framework target number of university degrees for a agreement period. In the polytechnic sector steering process sets the number of entrant places/admitted students. In 2008 Universities offered 30,484 and Polytechnics 32,590 entrant places in degree education.

2.5. Regional/ European/ global mobility

As regards entrants, 47% of them lived in a different region the previous year than the region where they study. In polytechnics this ratio is 40% and in universities 56% (2008 data).

According to Student Survey 2006 (national sample-based survey), 4% of the respondents lived with their parents and 28% in student accommodation. The prevalent form of housing was rented accommodation elsewhere (47%).

The reasons for this are probably that Finland is sparsely populated and the long distances make it impossible for many students to live at home. Independent living is facilitated by the housing grant included in the student financial aid. Another factor is the supply of student housing, albeit not large enough to meet all the demand. The cultural climate favours leaving home early to live independently.

In 2008 fewer than one percent of university entrants had an upper secondary certificate awarded abroad. No corresponding data are available with regard to polytechnic students.

The national aim is to achieve a significant increase in the number of foreign students in HEIs. According to the internationalisation strategy 2009-2015, the number is to rise from the present 11,303 (3.7% of all under- and postgraduate students in HEIs) to 20,000 (7%).

The HEIs themselves decide on the eligibility provided by foreign degrees and the recognition of studies completed abroad. The eligibility statutes are flexible in Finland. EU citizens are eligible if they are qualified in their home countries to pursue education of corresponding level. Prior degrees are recognised as part of the admissions process. The HEI makes these decisions in pace with the admission procedure, which makes the recognition procedure fairly quick.

The higher edification internationalisation strategy 2009-2015 sets an aim to effect a significant increase in the number of foreign teachers and researchers. The HEIs will develop their recruitment practices to this end. Finnish legislation does not set any major restrictions to the recruitment of persons with qualifications gained abroad and the HEIs are free to formulate their HR policies independently.

From 2010 the universities will decide independently on the qualification requirements. The qualifications required of polytechnic teachers are laid down in legislation. For special reasons, the polytechnics can also appoint a person who does not fulfil these requirements. The HEIs themselves decide on the equivalence of a degree if there is no prior decision on its equivalence to a degree required in Finland for a given post. These equivalence decisions are made by the National Board of Education. The National Board changes a fee of EUR 184 for its decisions and the average processing time is around four months.

As regards language skills, the legislation requires (from 2010 onwards) that those teaching in universities and polytechnics must master the language in which they teach. It is up to the HEIs to determine how this is demonstrated in practice.

One of the priorities in internationalisation is to increase the mobility of Finnish students. The strategy 2009-2015 sets targets for this. All HEIs in Finland offer opportunities for international mobility.

At the moment, the mobility rate is around 17%, counted from the number of entrants. Two thirds of the exchanges take place within Europe. The foremost exchange schemes are the EU Erasmus programme, institutional agreements, free mover placements, and the Nordic Nordplus programme. These represent 88% of the outgoing exchanges. Half of the mobility goes through Erasmus.

The strategy stresses the importance of planned mobility periods and systematic recognition of studies conducted abroad. The HEIs decide how the studies are counted towards Finnish degrees. The statutes provide for flexible recognition of studies completed abroad.

A number of measures have been taken with a view to the recognition of prior learning and its development. Some of these relate to mobility. The Finnish Council of University Rectors and the Rectors' Conference of Finnish Universities of Applied Sciences, collaborating with the universities, polytechnics and labour market organisations, drafted recommendations on the matter in 2009. The underlying principle is that studies carried out abroad will be fully recognised as part of a Finnish degree. In practice, there are differences between fields and institutions.

The two-cycle degree structure enables students to move flexibly from one HEI to another and even from one higher education sector to another to study for the second cycle. The two-cycle structure is not used in the field of medicine.

Mobility from one programme to another within a HEI is restricted. Mobility from one programme to another is possible on certain conditions. The aim is to develop more flexible models enabling students to change their major subjects or degree programmes within a HEI and to take certain courses in another HEI based on an agreement.

3. Evaluation

The Finnish national quality assurance (QA) system in higher education has three components: government steering (Ministry of Education), institutional quality assurance (HEIs), and national quality audits (the Finnish Higher Education Evaluation Council FINHEEC).

The universities are responsible for the quality of their education and research and other activities, and for their continuous development. The quality of the activities is indirectly taken into account in the target output of the universities and in the monitoring of their

attainment. As there is no unambiguous and comprehensive way to describe quality in statistical monitoring, evaluations are needed. The universities undergo regular evaluations and audits of their QA systems. The implementation of the degree and structural reforms are also monitored through evaluations.

The results of the evaluations must be published. The Finnish Higher Education Evaluation Council (FINHEEC), operating under the auspices of the Ministry of Education, and the Academy of Finland support the development of the university performance by conducting evaluations. The universities, the National Union of University Students in Finland (SYL) and the Ministry of Education cooperate in creating a university student feedback system, which will produce information on education, teaching arrangements and the value of the degree in the labour market.

3.1. Institutional evaluation

According to legislation, the HEIs are responsible for quality assurance. The institutions must evaluate their research and other activities and their effectiveness. They must also take part in external evaluation of their activities and publish the findings of the evaluations they undertake.

The FINHEEC is an independent expert body assisting the HEIs and the Ministry of Education in matters relating to evaluation. The Council consists of 12 members representing universities, polytechnics, students and employers. FINHEEC is a full member of ENQA. Its main task is to conduct external evaluations of the education provided by HEIs. University research is evaluated by the Academy of Finland. FINHEEC conducted institutional evaluations of all the Finnish HEIs, as well as a number of thematic and programme evaluations in selected fields. It also organises evaluation relating to centres of excellence in education.

The FINHEEC, the Ministry of Education, the HEIs, the student unions and other stakeholders reviewed the national QA system in higher education against the Bologna process and ESG (European standards and guidelines). The audit model developed in 2004-2005 is based on an enhancement-led approach, which is long-standing tradition in Finland. Another evaluation criterion is that the QA system should cover all operations, not only education but also research/R&D and support services.

The audits are performed on a registration basis. The HEI either passes the audit or, if it has major shortcomings in its QA, it has to take part in a re-audit within two years. The aim is to audit all HEIs by 2011.

The open databases (KOTA and AMKOTA), maintained by the Ministry of Education, are an important element in quality assurance. They contain statistical data on universities (KOTA)

and polytechnics (AMKOTA). There is annual data collected every year on the number of applicants, the number of entrants, student mobility, degrees, graduate placement, median graduation times, teachers, other staff, annual accounts, expenditure by performance areas, university premises, teacher and researcher visits, scientific publications etc.

Finnish universities and polytechnics have a statutory duty to evaluate and develop their operations and outcomes. Every university and polytechnic has its own QA system covering education, research, societal interaction and support services. The FINHEEC audits the QA systems. The first round of audits will end by 2011, after which it will start anew. The QA audit is in force for six years. If a HEI does not pass the audit, it will be re-audited within two years. One fourth of the audited HEIs have been re-audited. These audits do not have any direct links to financing.

Each institution independently determines its own objectives, the organisation and methods of its own quality assurance (QA) system and defines the quality it aims to attain in its strategies. The QA system is then evaluated by FINHEEC in relation to the institutional strategic objectives (see chapter 3 Evaluation). As the audits look for evidence of the comprehensiveness, transparency and effectiveness of each QA system, the institutions are invited to present concrete examples of improvement. The FINHEEC audit criteria also emphasise the continuous quality enhancement.

The QA tools used by HEIs include quality handbooks and other documentation; quality criteria and indicators for education and research; decryptions for core and support processes; definition of quality responsibilities; student, teacher and stakeholder feedback; cyclical internal and external evaluations; and systematic utilisation of feedback by the management or teachers and improvement measures.

Most HEIs have procedures for periodic monitoring and review of programmes and awards. For instance, many universities regularly organize international evaluations of education and research (for example University of Helsinki education and research undergoes international evaluation every six years). Some of HEIs carry out internal audits of study programmes and units.

More than half research financing is based on competition. The Academy of Finland, Tekes and other financing organisations grant funding based on application. Quality is a built-in condition in competitive funding, which is awarded to the best. In the university funding system described in chapter 4, over one third of funding is based on research and performance. Quality is also a major component in the indicators used in the Ministry-HEI performance agreements.

The Academy of Finland, which is subordinate to the Ministry of Education, issues a review of the state and quality of science and research in Finland once during the three-year term of

its Research Councils. In addition, the Academy conducts more detailed evaluations of fields of research (one in 1 - 2 years), mainly using international panels.

One means of enhancing research quality is to designate centres of excellence. The Academy selects the centres of excellence in research and the Finnish Higher Education Evaluation Council the centres of excellence in education. International experts are used in this process and the centres are rewarded with an extra grant.

Finland has been active in the OECD AHELO project, and research quality is also monitored by means of international university rankings.

The results of the completed evaluations must be published. The reports published by FINHEEC and HEIs are all available at their websites and in the form of publications.

4. Funding rules

Universities

In 2007 the university expenditure amounted to EUR 2.1 billion, 64% coming from the state budget and 36% from supplementary external funding. The share of external funding has grown by 13 percentage points from 1991, and its importance varies between universities.

Polytechnics

The government and local authorities share the costs of polytechnics. Government allocates the core funding which is based on unit costs per student (based on number of students and degrees completed), project funding and performance-based funding to polytechnics. The local authorities pay their contribution in proportion to the number of inhabitants - this source of funding is paid to the State by municipalities. Polytechnics also have external sources of funding.

4.1. Public funding

The Ministry of Education and the HEIs agree on the state funding during the performance negotiations. The agreement defines the HEI's duties, profile, focus areas, development activities and public funding, except the formula/based core funding. The common objectives for the higher education system as a whole are set by the Ministry of Education and the HEIs in collaboration. The targets for each HEI are linked to the common objectives and support the management of the HEI. The attainment of the goals is also monitored quantitatively or by means of indicators. The exchange of information goes via the KOTA and AMKOTA databases.

University funding

Overall funding

In addition to the public funding allocated through the state budget, the universities receive income and assets from jointly funded activities, fee-charging services, donations, and return on investments, which is expected to increase considerably in the future. A major part of the supplementary income is competed research funding. The universities are largely responsible for maintaining the basic infrastructure of the entire national research system.

Table 1. University expenditure by funding source in 2008

	Million €	%
Budget funding (allocated directly by the Ministry of Education)	1 432	65.8
Academy of Finland	154	7.1
Tekes, the Finnish Funding Agency for Technology and Innovation	93	4.3
Finnish enterprises	108	5.0
Other Finnish funding	292	13.4
EU funding	69	3.2
International funding	26	1.2
Total	2 175	100

Source: KOTA -database https://kotaplus.csc.fi/online/Etusivu.do?lng=en

The principles according to which state funding will be allocated for the statutory duties of the universities are laid down in the Universities Act. The Act on Discretionary Government Transfers will not directly apply to state funding of the statutory duties. Further provisions concerning the calculation of the funding, the distribution of funding and the index whereby the funding is increased will be enacted in a Government decree. Based on the legislation, the Ministry of Education will decide on the calculation criteria serving as the basis for formula/based funding.

The universities will finance their internal development projects at their discretion and include the funding in their long-term financial planning. In the future, discretionary funding, such as current project funding, which is applied for separately, will not be available.

In the future, performance and quality perspectives will included in the overall funding criteria. It will also be possible for the Ministry of Education to reward efficient activities and operations with performance-based funding within the limits of the budget appropriation. Furthermore, if Parliament so decides, the universities can be granted funds outside the formula-based funding (e.g. additional funding allocated to Aalto University).

State funding ensures that all universities are able to carry out their statutory duties. In funding, the same principles are applied to all the universities. The aim is to keep their respective and proportional funding unchanged during the transition stage (2010 -) and to reward individual universities for effective activities in the longer term. The basic principle to make decisions on possible permanent-level increases and other one-off special investments in the Government Programme.

The budget appropriation allocated to the universities, with the exception of non-recurring items, will be raised in accordance with the annual rise in the cost level based on a university index. The university index comprises the general index of wages and salaries, the consumer price index and the wholesale price index.

Under the new system, the estimated increase in the cost level will be taken into account in the public university funding for 2011. In addition to this, the universities will be refunded the VAT costs incurred by them in acquisitions and rents for premises relating to educational services and non-commercial research as referred to in sections 39 and 40 of the Value Added Tax Act (1501/1993). The aim is to cover the refund primarily through a separate budget appropriation. The refund will be reviewed annually on the basis of the average realised value-added tax accumulation of the universities.

The Ministry of Education will continue to provide funding for centralised services and for piloting and development. Within the limits of the budget appropriation, the Ministry of Education can finance operations which serve all the universities and which the universities would otherwise have to organise individually. As a rule, the universities agree on the financing of joint services through mutual agreements. Possible areas for this kind of joint action include centralised services for scientific computation, the maintenance of the research information network, common information systems, evaluation and national contribution to research.

In addition to the annual budgetary funds for the universities, there are other arrangements during the transition period of the universities, including tax concessions, the value-added tax refund, the provision of fixed equity and the transfer of university real estate to universities.

Strengthening the financial autonomy of the universities requires a more strategic approach from the steering and the funding instruments. Future increases in the resources of individual universities will partly depend on how well they succeed in their basic mission, as measured by given operational and qualitative indicators. The allocation of public formula-based funding will benefit universities with above-average quality, output and impact. The universities will allocate the funding internally based on their own strategic choices. The funding model will enable universities to undertake long-term development and encourage them to develop their profiles and continuously enhance quality, while aiming at the best productivity and cost-effectiveness possible. The funding criteria will be as clear and

transparent as possible so as to make the amount of funding reasonably predictable. The same criteria will be used in formula-based funding with regard to all the universities.

The criteria underlying university funding include the objectives and outcomes. The funding is designed to give incentive for enhancing quality and effectiveness. Degree targets and their attainment continue to play a key part in the model because they are the key outputs of universities. Making the number of degrees awarded a criterion in funding encourages the universities to organise their activities so as to make it possible for the students to complete their degree studies within the normative time. The focus on degree-based funding will shift from targets to outputs. With a view to balancing the annual variations in the number of degrees awarded by the smaller universities, it would be appropriate to examine the average number of degrees over several years. The differences in the cost structure of different fields of education (incl. the specific nature of the arts; required equipment) and in the teacher training schools will be taken into account in the funding model as part of the educational and disciplinary structure funding element. This will allow the former cost coefficients of second-cycle degrees to be abolished. This is further supported by the changes in the structure of the funding model, the decreasing significance of an individual degree and interdisciplinary cooperation.

The new elements in the funding model are geared to give incentive for the universities to develop their profiles and to attain important research and education policy aims, notably to reduce overlapping and doubling in education and to promote full-time studies. With a view to encouraging universities to enhance the quality and effectiveness of their research, the allocation of resources will be partly based on the amount of competed research funding acquired by the university and the extent of scientific publication.

The university core funding formula

Table 2. University core funding formula

Funding based on the quality, extent and effectiveness of the activities 75%				Other education and science policy objectives 25 %	
Education 55%		Research and researcher training 45%			
Extent of activities 85%	Quality and effectiveness 15%	Extent of activities 75%	Quality and effectiveness 25%	Education and discipline structure 75%	Strategic development 25%

Education and research, researcher training and artistic activities are among the statutory basic duties of universities, on which a significant part of the allocation of appropriations is based. Interaction with and impact on society are mainly realised through these. The educational function continues to be a major element but research and researcher training are a more important consideration than before. In education the extent of the activities is a more important factor than in research and researcher training. This is designed to create favourable conditions for education, which is more dependent on direct state funding.

The basic calculation will be updated annually on the basis of statistical data from the KOTA system. The percentages are determined on the basis of the information available during the year in question. Three-year averages will be used as far as possible in the calculation in order to balance out annual changes. The universities arrange the funding of joint networking, education and activities through mutual agreements.

Insofar as the funding is increased to correspond to the increase in costs, this increase will be taken into account annually in all the components of the core funding. The allocation to the universities of the contribution to the educational and discipline structure will take place in proportion to the funding for the educational and discipline structure of the first year of the agreement period, and the allocation of funding for strategic development will remain at the discretion of the Ministry.

Polytechnic funding

In 2010 the government transfers for polytechnic education will be based on the 2009 student number (70%) and the realised number of degrees (30%). There are plans for changing the grounds for polytechnic financing in connection with the government transfer reform so that the student numbers will be determined by fields of education without a division into youth and adult education. The overall number of students in each field comprises youth and adult education, polytechnic Master's programmes, specialisation, open polytechnic education, teacher training and preparatory education for immigrants.

Although the performance agreements concluded with polytechnics define target numbers of degrees as a new element, this will not influence the funding in the agreement period 2010-2012. The Ministry of Education will put forward its proposal for the field-specific student numbers for 2010–2012 as a basis for the funding to be settled in the performance agreement, and the polytechnics will put forward their specified proposals. The Ministry monitors the realised numbers against the calculatory numbers in all the sectors included in the overall number of students in areas listed above.

Table 3. Polytechnics funding structure

Government transfers (unit cost x student number) 849 M€ v. 2009		Government subsidy 24 M€ v. 2009
70 % (594 M€) according to the computational number of students determined by fields of education the student number determined by fields of education the student number	30 % (255 M€) according to thenumber of realised degrees • 2-year average	Project funding n.20 M€
Discretionary rise in the unit cost		Performance-based funding 4 M€

Project funding

During the agreement period 2010–2012 the Ministry of Education will support development in the areas specified in the polytechnics' strategies. The average annual sum of project funding granted is EUR 20 million. The polytechnics submit their project applications in two baskets: R&D and other development supporting the strategy work (with internationalisation,

structural development and study processes as special priorities). In the latter basket it is possible to submit three projects, the maximum number of projects being four. The strategy-driven projects must specify what specific aspect they are geared to promote. The projects must also implement the objectives common to all polytechnics.

Performance-based funding

The Ministry of Education is prepared to grant performance-based funding up to EUR 4 million a year to the most successful polytechnics according to certain criteria over the period 2010–2012. The criteria include targets set in the agreement and indicators.

The Finnish Higher Education Evaluation Council will submit its proposal for the centres of excellence in polytechnic education for 2010–2012 in November 2009. The Ministry will grant EUR 3 million annually to the centres of excellence over the period.

Research funding

Universites and Polytechnics

The HEIs can apply for competed public funding from the Academy of Finland, Tekes (Finnish Funding Agency for Technology and Innovation) and EU programmes.

Universities

Quality and quantity of research activities are taken into account in the allocation of the State funding to universities on basis of the university core funding formula.

Under the new Universities Act the universities can use the proceeds from their business activities doe their activities and otherwise increase their assets and use capital income to finance their research and education activities.

4.2. Impact of quality assessments on funding

University funding

Chapter 4.1 introduces the funding formulas for HEIs. Quality and effectiveness of education and research are determined in the form of entities and indicators in the university funding formula for period 2010-2012.

The quality and effectiveness of education element of the formula allocates the funding on the basis of monitoring indicators for promoting education policy objectives that are of strategic importance to all the universities. The basic principle is that all the universities will have the

opportunity to obtain funding based on quality. With the exception of funding for Centres of Excellence, all universities will also receive a share of funding determined on the basis of various criteria.

When allocating funding, the extent of the activities relating to the thematic entity and the attainment of goals are taken into account. In the calculation, the allocation between the universities will take place directly in proportion to the weighting of the criterion and there will be no need for a separate coefficient for the size of the university.

The quality and effectiveness of university education will be determined according to the following thematic entities and criteria:

Table 4a. Impact of quality assessment on university funding	Weighting	
1. The quality of education and functioning of study processes[1]	*80%*	
a) On the basis of the Centre of Excellence proposed by the Finnish Higher Education Evaluation Council, 300,000 euro annually/centre.		
b) The number of students studying for first- and second-cycle higher education degrees completing at least 45 ECTS credits in an academic year		50%
c) The number of student graduates who started studying for their first degree in x after 7 years have passed		50%
2. Internationalisation of education	*20%*	
a) Number of outgoing and incoming exchange students in Finland (duration of exchange over 3 months)		50%
b) Number of ECTS credits completed in education in a foreign language (and the number of ECTS credits completed abroad included in the degree)		13%
c) The number of ECTS credits acquired abroad and included in the degree is included in the calculation when the data collection of the statistical material is complete.		12 %
d) Number of international degree students		25%

The quality and effectiveness of research and researcher education is taken into account when allocating funding on the basis of monitoring indicators for promoting science policy objectives of strategic importance to all the universities. All the universities will receive a share of the funding determined on the basis of various criteria.

When allocating funding, the extent of the activities relating to the thematic entity and the attainment of goals are taken into account. In the calculation, the allocation between universities will take place directly in proportion to the weighting of the criterion and there will be no need for a separate coefficient for the size of the university.

The quality and effectiveness of the research and researcher education will be determined on the basis of the following thematic entities and criteria:

[1] In the calculation for the quality of education and functioning of the study processes, the funding required by the Centres of Excellence is first deducted and the rest is allocated evenly between the other two criteria.

Table 4b. Impact of quality assessment on university funding	Weight	
1. Research funding competed for nationally	*60 %*	
a) Academy of Finland funding for the university		75 %
c) Tekes funding for the university		25 %
2. Scientific publications	*20 %*	
a) Number of refereed international publications		60 %
b) Number of other scientific publications		40 %
3. Internationalisation of research	*20 %*	
a) Amount of international research funding competed for [2]		60 %
b) The overall amount of teacher and researcher mobility[3]		40 %

Polytechnic funding

The core funding allocated to the polytechnics is based on a calculated number of students and completed degrees (97% of the state funding). In addition to the completed degrees as a qualitative element of funding, the funding formula does not take into account the quality aspects. The performance based funding (0.5% of the state funding) for polytechnics is based on quality indicators (for example employment rate of graduates, % of graduates occupatied as entrepreneuers, student feedback on education).

4.3. Private funding

4.3.1. Tuition fees and/or households

The beginning of 2010 will see the launch of an experiment which will enable certain Master's programmes to charge fees to students who are citizens of non-EU countries. This is not expected to form a significant source of financing.

In addition to this experiment, there are no plans for charging tuition fees in Finland. Degree education will remain free of charge for the students.

4.3.2. Business, other

The HEIs can sell fee-charging R&D as well as education services and receive donations, bequeaths and other property.

A fixed-term rise in the maximum tax-free donations will encourage corporate donations to universities.

The universities operating as legal persons, which will have stronger financial and administrative autonomy, will be able to supplement their income with business activities,

[2] Funding does not include enterprise funding or EU Structural Funds.
[3] The overall amount of mobility to and from Finland (min. 2 weeks over the period 2010-2011, min. 1 week from 2012)

donations and bequeaths, and possible capital income. They can arrange made-to-order education against a fee. They can also apply for competed financing from the Academy of Finland, Tekes and EU programmes.

Slightly over one third of the university expenditure will be covered from income outside the public funding, such as income from R&D carried out in collaboration with the private sector. The rise in the maximum tax-free donations (up to 2011) will support these endeavours. The government contributes to the capital formation of the universities by granting funding in the ratio 2:5 against externally acquired capital. The universities will continue to have income from the dividends of the companies they own. They can seek to increase their capital and use the capital income to finance their operations and activities and to enhance quality.

For both sectors, other sources of funding are European structural funds as well as public funding from municipalities and other public organisations (other ministries - especially the Ministry of Employment and the Economy, regional councils etc.). In addition to that international research funding based on competition (framework programme etc.) are sources of funding for universities.

4.3.3. Grants/loans

Student financial aid is granted to full-time studies aiming at an upper secondary school certificate, a vocational qualification, a polytechnic or university degree, and for additional studies qualifying for a profession or a post. Aid is also granted for studies abroad if these are equivalent to studies entitling to aid in Finland.

Student financial aid comprises a study grant, a housing supplement and state guarantee for a student loan. The aid is granted by the Social Insurance Institution in cooperation with the education institution concerned. Other benefits available for HEI students are interest assistance and subsidised or free meals. Higher education students can buy their meals at a subsidised price in designated student cafés.

Student financial aid is granted for a predetermined period, depending on the level of education. The amount of aid depends on the student's age, the form of housing, the level of education and means-testing. In higher education, the means-testing usually concerns the student's own income, at other levels the parents' income also influences the amount of aid. The student financial aid scheme includes a housing allowance, which is granted towards the cost of accommodation during studies.

Student loan and tax concession for loan are applied when students apply for a bank loan. The loan is repayable but guaranteed by the government. The maximum amount of state-guaranteed loan is determined annually. No other security is needed for these loans.

The student loan is granted by a bank at its discretion. The interest and other terms are agreed by the bank and the student. The payback time is usually twice the duration of studies.

A tax concession on loan will be granted to students beginning their studies in the academic year 2005-2006 and later. The condition for the tax relief is that the student graduates in the normative time and has taken a given amount of loan. Interest assistance is available to all those who have low income and who have no longer received financial aid for a specified period.

5. Impact on Employability

In the university sector the involvement of employers in curriculum design varies more depending on the field of study. Work placements are used in most fields of study but it is not compulsory part of studies in all degree programmes. Many HEIs for instance in the technology field require work practice as part of their degrees. In some universities, students write their theses for businesses and other world of work.

According to their mission polytechnics train professionals in response to labour market needs. Therefore, employers and representatives from working life have a significant role in curriculum design of degree programmes in the polytechnic sector. Polytechnics usually have advisory boards with stakeholders from the world of work for every degree programme or every field of study. Also all first cycle degree studies include practical work placements. Nearly all theses are written for businesses and other world of work.

All HEI's have external stakeholders in their governing board stipulated by the law. The members representing the world of work on the boards of the universities and polytechnics also give feedback on labour needs. Further, may HEIs have field-specific advisory boards to look into the development of quality and quantity from the perspective of the world of work.

There are regular field-specific foresights concerning long-term labour and educational needs, based on which provision is reallocated between secondary vocational, polytechnic and university education.

Quantitative information: differential in unemployment rates among tertiary education graduates relative to individuals with upper-secondary attainment

Universities

Main occupation of holders of Master's degree graduates in 2000 and 2006 at the end of the year following the graduation year and unemployment rate after two years								
		Number of Master's degrees	Employee %	Entre-preneur %	Student %	Other %	Unemployed %	Unemployed after 2 years %
All universities	**2000**	**11489**	**84,7**	**1,2**	**3,9**	**3,5**	**3,3**	**2,8**
	2006	**13022**	**83,5**	**1,5**	**4,5**	**3,6**	**3,6**	

Polytechnics

Main occupation of holders of Polytechnic degree graduates over the period 2003-2007at the end of the year 2007							
		Number of Polytechnic degrees	Employee %	Entre-preneur %	Student %	Other %	Unemployed %
All polytechnics	**2003-2007**	**102239**	**83,5**	**12,5**	**4,1**	**5,4**	**3,3**
	2006	**20747**	**85,0**	**2,3**	**3,3**	**5,1**	**4,4**

Over the period 2003-2007 there were 88,000 university and 97,000 polytechnic degrees awarded in Finland. The unemployment rate was 4.7% among university and 11.4% among polytechnic graduates. The employment rate was 76% in regard of both these groups.

Table Main occupation of holders of vocational or higher education degree over the period 2003-2007 at the end of the year 2007, %

Main occupation	Vocational education *	Polytechnics	Universities
Degrees completed	214000	97000	88000
Employed	64	76	65
Unemployed	8	5	3
Employed students	10	9	18
Full-time students	7	4	7
Military/Civil service	3	0	0
Emigrated	1	2	3
Other or unknown	7	4	4

*) Holders of vocational education degree over the period year 2004-31.7.2007

Source: Statistics Finland

Over the period 2004-2007 there were 214,000 vocational degrees awarded in Finland. The employment rate was 64 % in regard of vocational training graduates. The unemployment rate was 11,7 %.

The universities have recruitment services which provide career planning and job application training for students. The services form a network called Aarresaari, which acquires the placement data.

Polytechnics monitor the placement of their graduates in several ways. They have a joint Jobstep service and a student feedback system, which monitors the graduates' work situation at the time of graduation.

6. Recent and planned reforms of the tertiary education system

6.1. Description of recent reforms

The ongoing overall reform of higher education concerns both universities and polytechnics. The reform comprises the new Universities Act and amendments to legislation governing polytechnics and the Academy of Finland. Parallel to this legislative reform, there is structural development, strategic work in HEIS, enhancement measures to step up internationalisation, and a reform of university funding. Apart from the overall development of higher education, measures are taken to devise a national research infrastructure policy and to develop the structures of sectoral research. The international evaluation of the Finnish innovation system, projected to be ready this year, will provide information for the development of university research, development and innovation.

New Universities Act

The purpose of the university reform is to provide a level playing ground for Finnish universities with the best international universities. To this end, the universities are given the economic and administrative means for enhancing research and education quality and their impact and for participating in international cooperation.

The Finnish Parliament passed the Universities Act on 16 June 2009. The Act gives universities a financial and administrative autonomy, but the main mission - research and education and societal interaction - will remain the same. The government guarantees core funding for the universities at the present level and to be increased according to an index.

The universities will become independent legal persons as from 1 January 2010. The operations and activities of Helsinki School of Economics and Business Administration, the University of Art and Design and Helsinki University of Technology will merge for form Aalto University, which is governed by the Foundations Act. In addition, Tampere University of Technology will become a foundation university. Other universities will be public universities. The reform will reduce the number of universities from 18 to 16. The new university system is discussed in more detail in Chapter 2.3.

Research and education still the main university mission

The reform will create more favourable conditions for the operation of universities and enhance the quality and impact of education and research. This will facilitate their situation in international competition.

The freedom of research, art and education is guaranteed. The universities continue to carry out a public mission, and their duties, educational responsibility and right to award degrees are governed by legislation. The Ministry of Education uses its steering to ensure that the objectives set in education and research policy are achieved, and the target numbers of degrees ensure the availability of graduate work force according to labour market needs.

The duty of universities is to promote free research and academic and artistic education and to provide education based on research. In executing their mission, the universities must promote lifelong learning, operate in interaction with the rest of society and enhance the impact of research findings and artistic activities. Academic research is the primary task and it provides the basis for the educational activities.

The new governance model highlights university self-government

University governance and leadership are reformed and strengthened to enable the universities to give a better and more flexible response to the challenges and opportunities of their new financial situation. The status of the rector and the university's own academic decision-making will be consolidated. The new, stronger financial and administrative autonomy will open new opportunities but also give the universities new kinds of responsibilities. For instance, the finances and leadership will require new kind of competence, as the responsibility for the solvency and financial standing will rest with the university.

The relationship with society will gain strength from the fact that at least 40 % of the members on the university board must be external. The university collegiate body will elect the board members, and if it so wishes, can elect an external majority. The chair and vice-chair of the board will be elected from amongst the external members.

The board of a foundation university has seven members, at least three of whom are appointed by the founders of the university foundation. The number of candidates must be at least double the number of external members to be elected. Foundation universities may also elect a completely external board.

The situation of the university personnel secured

The university personnel will be in an employment relation governed by labour legislation. The employer will no longer be the State of Finland but the university. The independence in

personnel matters will enhance the competitiveness of universities. A flexible personnel and salary policy will enable them to recruit world-class teachers and researchers.

The situation of the current personnel will be secured in the transition. The currently employed persons who were born before 1980 will remain within the state pensions scheme as long as they are in the university's employ. Other personnel and those to be recruited will be covered by a private work pensions scheme.

The situation of the student will remain unchanged

The reform will not change the situation of students. The student unions are corporations under public law and defined in the Universities Act. All Candidate' s and Master's students will belong to them.

The responsibility for admissions will remain with the universities. A national joint application system will also be introduced in university admissions. The one-place-per-student rule will be amended and a student may accept only one place in a programme belonging to the joint application system in a given term.

Degree education will remain free of charge. In addition, there will be a trial in which universities may apply for the right to charge fees to non-EU/EEA students in a Masters' programme. The trial includes a scholarship scheme. The trial will be evaluated in 2012.

Government still the primary source of financing

The government will continue to provide core funding for all universities; this will be tied to the rise in costs. The new Act enables universities to widen their financing base. Improvements in quality and impact will create favourable conditions for university operations to acquire both national and international competed financing. University finances are discussed in more detain in Chapter 4.

Universities will also be able to apply for competed financing (Academy of Finland, Tekes) and to use income from their business activities, donations and capital income.

University equity

The government will provide capital for the universities so as to assure their liquidity, solvency and credit-worthiness. The means to this end include direct transfers, property in the possession of the universities, and real estate. In addition, other partners may also contribute toward the equity with donations.

The real estate in the possession of the State-owned Senaatti realties will be incorporated into one company, the real estate used by the constituent universities of Aalto University into another and other university real estate into a third company. The shares in these companies will be divided between the universities (two thirds) and the government (one third).

The Act implementing the new Universities Act took force on 1 August 2009, after which the universities began to become organised as legal persons and will start operating in their new form on 1 January 2010. The Government has seen to it that the universities have a stable financial basis on which to start operating in their new form.

Institutional strategies

In the 2008 performance negotiations, the universities and polytechnics agreed with the Ministry that they will revise their strategies by the negotiations to be held in 2010. This requires collaboration amongst themselves, with the region and with other operators in the innovation system. The aim is that the profiles of the universities form a national whole which fulfils the educational, cultural, and research needs in society. Each HEI can define a profile with distinctive focus on R&D and innovation and regional operations, youth education, adult education and lifelong learning, or artistic activity.

The profile, responsibilities and priorities of each HEI will be agreed upon in the negotiations based on the strategies. The development recorded in the agreement must support the institutional strategy or structural development.

Higher education steering

The steering of universities and polytechnics by the Ministry of Education will be harmonised as from 2010. University steering stresses the stronger financial and administrative autonomy. The reform will generate new ways for universities to organise their operations and create conditions comparable to those of the leading international universities.

The polytechnics will have degree targets instead of set intakes. The institutional strategies play a major role in the steering of both sectors. In polytechnics the major change is that the intakes in youth and adult education are no longer regulated. This will enable them to organise their operations more flexibly.

Agreement procedure and goal setting between the Ministry of Education and the HEIs

The regular negotiations held between the Ministry of Education and the universities constitute a key element in the steering process. In the negotiations, the parties agree upon the HEI's duties, profile and focus areas for a fixed period, as well as on the central goals and development measures set for the HEI with respect to education and science policy. In

addition to the goals, the negotiations also cover the HEIs' strategic issues relating to the development of the operations

The agreement procedures and the length of the agreement period are also linked to the more comprehensive steering reform project in the administrative sector of the Ministry of Education. In order to strengthen the links to national goals, the agreement period will be organised to coincide with the Government and parliamentary term so that the goals are set for a four-year period as of 2012. Anyhow, the next agreement will be negotiated for the years 2010–2012 but the four-year agreement periods will be introduced from 2013. The agreement negotiations will be held in the year preceding the agreement period or during it, if this is deemed necessary by the Ministry of Education. The connection to the HEIs during the years in between the agreement period will be ensured through sufficient interaction and feedback system. The Ministry of Education will make the funding decisions every year on the basis of the agreements.

The structure of the agreement to be drawn up on the negotiations between the Ministry of Education and the university will be common to all the universities and polytechnics. The agreement will be more strategic, streamlined and focused on the central indicators. However, the content of the agreement will take into account the special characteristics of each HEI, with the exception of the common goals for the system of higher education.

The goals and appropriations for the universities operating as legal persons will be agreed upon for the first time in 2009 with respect to the budget year 2010.

6.2. Planned reforms (or reference to ongoing policy debate)

Structural development of HEIs

The structural development of higher education is linked to the overall reform of public research structures and the modernisation of higher education in Europe.

The universities and polytechnics are currently revising their strategies. A programme of structural development will be devised on the basis of these strategies. It will form part of the 2010 report of the Research and Innovation Council.

The aim of the structural development, for instance the merger of units into larger entities, is to free resources from the structures for use in the enhancement of education and research quality and their international competitiveness. Measures are taken to ensure that the network of HEIs is regionally comprehensive. Activities are increasingly compiled into campuses where the different operators in the innovation system meet in a creative environment.

The ultimate aim is stronger impact, high-quality core processes ─ education and research ─ and clearer profilisation, cooperation and growing internationalisation. In impact, the focus is shifting from permanent institutional structures to knowledge transfer and procedures relating to flexible study arrangements, such as adult education and R&D&I that serve regional, national and international needs. In the construction and use of infrastructures, cooperation between universities, polytechnics and research institutes is of particular importance. Educational cooperation is desirable, but it is important to retain the profiles of the higher education degrees.

The Aalto University Foundation, created through the merger of Helsinki School of Economics and Business Administration, the University of Art and Design and Helsinki University of Technology, was established in the summer of 2008 and the new Aalto University will start operating fully at the beginning of 2010. The other foundation university, Tampere University of Technology, will also start then.

The other 16 universities are public universities. The Universities of Joensuu and Kuopio will form the University of Eastern Finland and the University of Turku and Turku School of Economics will merge into a new University of Turku. Both will also start operating at the beginning of 2010.

In the polytechnics sector, Tampere and Pirkanmaa Universities of Applied Science will merge in March 2010.

Reform of sectoral research

There are 18 national research institutes in eight administrative sectors in Finland. Attached to the Ministry of Education is an expert body, the Advisory Board for Sectoral Research, to coordinate sectoral research.

The Advisory Board, established in 2007, was appointed in a new composition in 2009. The former Board was composed of the permanent secretaries of the ministries, the new one comprises the research directors of the administrative sectors with a view to stronger expertise. In addition, the remit is being expanded towards the creation and financing of extensive research programmes.

The Advisory Board for Sectoral Research prepares proposals for the structural development of sectoral research and explores the possibilities to transfer academically oriented research from the sectoral institutes to universities. In the future, the budgets of the sectoral institutes will be cut back, which, together with the government productivity programme, will curtail their activities and personnel.

The Advisory Board assists the Research and Innovation Council, which is led by the Prime Minister, in compiling an action programme based on the ministries' proposals. This will also form part of the 2010 report of the Research and Innovation Council as one component of the structural development of the research system. In the autumn of 2009, the Advisory Board for Sectoral Research will oversee a survey of government research institutes with the aim of reducing overlapping and strengthening the core mission of the institutes. The survey is projected to be carried out during 2010.