

Opetusministeriö

*Ministry of Education*



# Management and Steering of Higher Education in Finland

Publications of the Ministry of Education, Finland 2004:20

# Management and Steering of Higher Education in Finland

Publications of the Ministry of Education, Finland 2004:20



OPETUSMINISTERIÖ

*Undervisningsministeriet*

MINISTRY OF EDUCATION

*Ministère de l'Éducation*

Ministry of Education  
Department for Education and Science Policy  
Meritullinkatu 10, Helsinki  
P.O. Box 29, FIN-00023 Government  
Finland

<http://www.minedu.fi>

[www.minedu.fi/minedu/publications/index.html](http://www.minedu.fi/minedu/publications/index.html)

Layout: Teija Metsänperä, Ministry of Education  
Printed by Helsinki University Press, 2004

ISBN 952-442-757-5 (pbk.)

ISBN 952-442-758-3 (PDF)

ISSN 1458-8110

Publications of the Ministry of Education, Finland 2004:20

## Contents

1	Introduction	4
2	Management and Steering of Higher Education in Finland	8
2.1	Universities	8
	2.1.1 <i>Steering system in universities</i>	8
	2.1.2 <i>KOTA database</i>	13
2.2	Academy of Finland	14
2.3	Polytechnics	14
	2.3.1 <i>Steering system in polytechnics</i>	14
	2.3.2 <i>Monitoring and evaluation database (AMKOTA)</i>	17
	Appendices	19
1	Performance agreement between the Ministry of Education and the University of Joensuu for the period 2004–2006 and resources for 2004	19
2	Performance agreement between the Ministry of Education and the Academy of Finland 2004–2006	26
3	Performance agreement between Rovaniemi Polytechnic, Rovaniemi Municipal Federation of Education and Ministry of Education for 2004–2006	32

# 1 Introduction

The Finnish higher education system comprises two parallel sectors: universities and polytechnics. Universities focus on scientific research and education. Polytechnics are professionally oriented higher education institutions. In addition to their educational role, polytechnics conduct R&D that serves teaching and the world of work. There are 20 universities in Finland: 10 multi-faculty institutions, 3 universities of technology, 3 schools of economics and business administration, and 4 art academies. There are 29 polytechnics, most of which are multi-field higher education institutions.

The provision of higher education in Finland is extensive. The annual student intake in higher education is equivalent to about 65% of the average size of the 19–21 age group. In 2003 there were about 174,000 degree students in universities, 83,000 in open university and over 129,000 in polytechnic degree programmes.

All Finnish universities are government-run institutions and primarily financed from the state budget. The universities have extensive autonomy. The polytechnics are either municipally or privately run and co-financed by the government and local authorities.

Parliament passes educational legislation and decides on the overall lines of education and research policy. The universities are governed by the

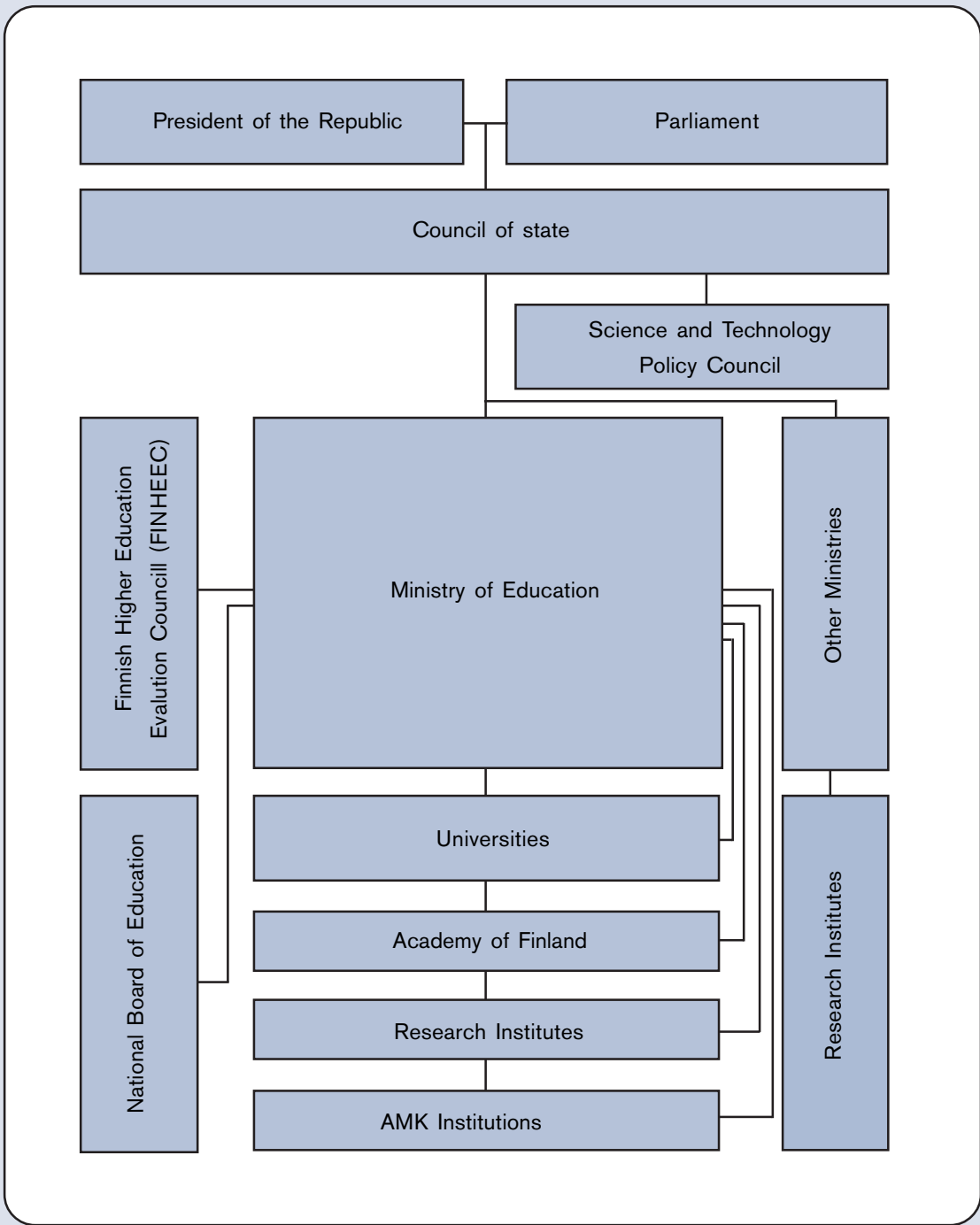
Universities Act and polytechnics by the Polytechnics Act. Each field of study in universities is governed by a separate decree. Legislation concerning the university degree structure is being revised to enable the new two-cycle degree structure to be adopted on 1 August 2005. The main policy guidelines and development targets are determined at a general level in the Development Plan for Education and Research which is adopted by the Government for a six-year period every four years. Performance management and target outcomes constitute the most important tool for the Ministry of Education in steering the operations of the universities and the polytechnics. This is strategic steering which implements the national higher education policy.

The polytechnics and universities are responsible for evaluating and developing their own operations and outcomes. The Higher Education Evaluation Council, established in 1995, is an advisory body assisting the universities and polytechnics and the Ministry of Education in evaluation matters and promoting evaluation as an integral part of institutional operations.

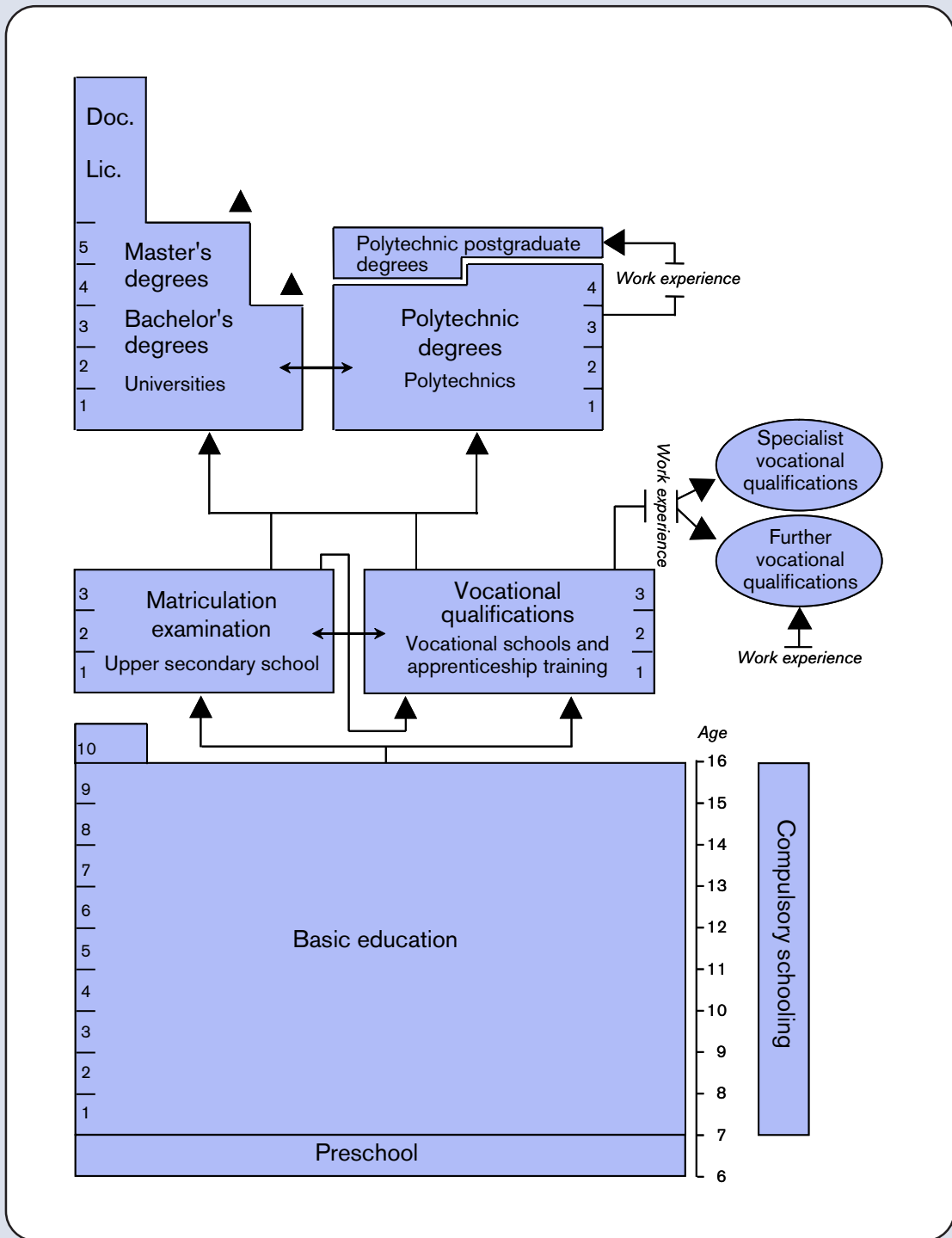
The national science, technology and innovation policies are formulated by the Science and Technology Policy Council, which works under the Prime Minister. The authorities primarily responsible for

science and technology policy are the Ministry of Education and the Ministry of Trade and Industry. The Ministry of Education is in charge of matters relating to education and science policy, institutions of higher education, and the Academy of Finland. The Ministry of Trade and Industry deals with matters relating to industrial and technology policies, the National Technology Agency Tekes and the Technical Research Centre of Finland VTT. Nearly 80% of government R&D funding is channelled through these two ministries.

The Academy of Finland is in charge of research administration and finances most university research. The Academy has four research councils, appointed for three-year terms, each financing research in its disciplines. Another important task for the Academy is to evaluate research.



Central Administration of Higher Education and Research



Finnish Education System



## 2 Management and Steering of Higher Education in Finland

### 2.1 Universities

#### 2.1.1 Steering system in universities

The procedures for steering universities were jointly developed by the Ministry of Education and the universities towards management by target outcome in the 1990s. In recent years, university autonomy has grown with the lessening of legislative and budgetary control. The transformation in university budgeting started in 1994, with a changeover to one operational appropriation. In 1997 started a gradual transition to core funding based on calculational unit costs. The Universities Act, which was promulgated in 1998, increased university autonomy by delegating many matters previously regulated by separate Acts and Decrees to the university decision-making bodies. The Ministry of Education still determines the distribution of educational responsibilities between the universities by means of decrees issued for each field of study separately. In return for the larger latitude in resource use, the universities agree on target outcomes with the Ministry, monitor the achievement of the targets and report on them to the Ministry.

### **University steering**

The Ministry of Education is responsible for preparing Government matters in its sector, for ensuring appropriate operations and for steering relevant administration. The primary means to this end for the Ministry are resource allocation, legislation and information. One important tools are the performance agreement between the Ministry of Education and each university and performance monitoring systems, notably the KOTA database.

With management by results and target-setting, the Ministry of Education seeks to promote the central aims set for the development of education and research in the Government Programme, the Development Plan for Education and Research, the Ministry's own Action and Economic Plan and other national strategic programmes.

The aim in the development of university performance management is:

- To secure favourable conditions for the operation of a regionally representative university system
- To ensure strategic steering, with emphasis on evaluation in development
- To support universities in defining their strategies and profiles
- To achieve a high quality of university operations and their strong impact on society and the regions.

The performance agreement process and the setting of target outcomes starts in June (year n-2) when the Ministry sends the instructions based on the strategic guidelines to universities for the following performance negotiations. The performance agreements concluded between the Ministry of Education and the universities determine quantitative and qualitative targets, the resources needed to achieve these targets, the monitoring and evaluation of outcome, and further development of operations. The university target outcomes are set for a three-year period. In the intervening years, the targets are reviewed and confirmed and resources are determined for the following year. Aims relating to quality and its enhancement are largely the

university's own responsibility.

In the agreement period 2004-2006 quantitative targets will be set for entrants to Bachelor's and Master's programmes; for Master's degrees; for doctorates; for international student exchanges; for foreign degree students; for full-time equivalent student places in open university instruction; students transferring to degree programmes via the open university track; and for the share of non-budgetary financing. The target numbers are set by fields of study. Where no quantitative targets can be determined for societal impact, the objectives describe the nature of activities. All except the quantitative performance targets are common to all universities, but an effort is also made to take account of each university's own specific profile and relevant aims.

The performance agreement process also includes preparatory seminars and other joint events for the universities and the Ministry of Education before they embark on the actual performance negotiations. The aim of these events is to increase interaction between different levels and to promote commitment to the targets. The universities send their target performance materials to the Ministry in February (year n-1), such as strategic policy lines, project proposals and a brief memorandum describing the achievement of the previous targets and explanations for possible failure in it. At this point, the KOTA data are made available for the preparation of the performance agreements. In March, before the actual negotiations, the Ministry of Education sends a draft agreement to the universities. They give their opinion on the agreement to the Ministry before the negotiations, which are conducted in April, when the universities' financial statements are available.

In the Ministry-university performance management procedure, monitoring is mainly based on the financial statements and the KOTA database. The database shall be developed to include better-documented planning and monitoring data and to be more flexibly accessible to the various parties. In addition to these data, the Ministry requests separate reports on the progress made in national programmes and projects.

In the performance negotiations, the universities are given oral feedback concerning the previous year's performance. In June, the Ministry gives written feedback about the quality of reporting, the effectiveness of operations and development needs in strategic priority areas. University finances are audited by state auditors elected by Parliament and the independent State Audit Office attached to Parliament.

The new steering system has highlighted the role of evaluation in university development.

The statutory obligation of universities to assess the quality of their operations is defined in the Universities Act. In Finland, the premise is that there is no significant connection between evaluation findings and the resource level, especially as concerns teaching. The purpose of evaluation is to enhance the quality of operations, and the main responsibility for using evaluation findings rests with the university. Evaluation findings also have significance in monitoring activities which cannot be given quantifiable targets. Universities are assisted in educational and other evaluation by the Higher Education Evaluation Council. The Academy of Finland is responsible for evaluating research.

#### **Operational expenditure in the agreement period 2004–2006**

University resources consist of state funding, allocated by the Ministry of Education, and external funding. The resources for the Ministry of Education sector are annually decided by the Government in a budget framework. The Ministry determines the share of the university budget within this framework.

The Ministry of Education steers university activities financed from the core funding, primarily concerning itself with financing university research and relevant teaching and with maintaining the relevant infrastructure and thereby the infrastructure of the whole national research system. The basic principle is that the main responsibility for managing externally financed activities rests with the university. However, external financing is linked to the steering system through economic planning and net

budgeting. The expectation is that external funding supports the university's basic mission.

The purpose of the development of the financing system is to secure continuity and to include only the funding of essential development needs in the financing model. Another purpose is to effect a closer connection between aims and resources. The aim is that the expanding activities and the growing facilities expenditure are reflected as a corresponding growth in the budget. The core funding formula based on unit costs has been developed as a national framework allocation model geared to secure both the core mission of universities – teaching and research – and the financing of the societal services they provide. Universities use their own criteria in internal resource allocation.

The financing allocated by the Ministry of Education to universities during the agreement period 2004–2006 comprises the following (as a percentage of operational expenditure in 2004):

- Actual core funding (89.4 %)
- Financing of national tasks (1.5 %)
- Financing of national programmes (4.7%)
- Project funding (1.9 %)
- Performance-based funding (2.4 %)

#### **Core funding**

The aim is to keep core funding as stable as possible and at a level which covers a major part, around 87 %, of operational expenditure. The core funding is allocated by means of the unit-cost formula, which has been designed to be as transparent and predictable as possible. The purpose is to divide the framework funding between the universities, not to target funds directly to different degrees or other activities. This shall also secure the prerequisites of activities other than undergraduate and graduate education. Whenever necessary, activities not covered by the formula are agreed as part of the societal services financing.

The formula used to allocate university core funding comprises four segments: extent of activities, teaching, research and societal services.

## Core funding in 2004–2006

Core funding <sup>1)</sup> (M€ 1 013)							
Extent factor (19%)			Educa- tion (44%)	Research (30%)		Societal services (7%)	
Basic component (M€ 65)	New students (M€ 65)	Facili- ties (M€ 65)	Master's degrees (M€ ~447) - targets 2/3 - realised 1/3	Graduate schools (M€ 36,5)	Docto- rates (M€ ~262) - targets 2/3 - realised 1/3	Open university (M€ 13) - targets 2/3 - realised 1/3	- Other societal services (M€ 60)

<sup>1)</sup> The calculation is based on an assumed total of 1013 million euros, from which the percentages are calculated. The extent factor and societal services are fixed sums. The teaching/research ratio is 60:40. Any increases in the framework funding shall be used to finance teaching and research.

Except for graduate schools and open university teaching, the university can allocate core funding at its discretion.

The *extent factor* comprises the basic component allocated to all universities, resources based on the target number of new students determined in the performance agreement, and facilities expenditure. The basic component is determined in relation to the 2003 operational expenditure. The new students allotment is determined in relation to the target numbers set in the performance agreements for 2004–2006 and the facilities expenditure divided in relation to the 2002 data on realised budgetary expenditure on facilities in the KOTA database. The extent funding is agreed for a three-year period.

In the *teaching and research appropriations*, the criteria are the target set for Master's degrees and doctorates (coefficient 2/3) and degrees conferred (coefficient 1/3) in each field of study. The realised number of degrees is calculated as a three-year average to minimise annual variation. The target and realised numbers of Master's degrees are further weighted with a field-specific cost coefficient.

As regards doctorates, it is assumed that the costs

do not vary between fields to the same extent as in undergraduate education. The differences are further levelled out by external research funding. Field-specific cost factors are difficult to determine because different fields of study differ in their internal structure. In addition, separate financing is granted to certain activities in some fields of study. There are still some weaknesses in the cost calculation data with regard to time use.

The Master's degree coefficient in different fields of study in the period 2004–2006:

- **I group** (1.25): humanities, economics, law, theology, health sciences and social sciences
- **II group** (1.5): education, sport sciences and psychology
- **III group** (1.75): technology, natural sciences and forestry-agriculture
- **IV group** (3.25): pharmacy, veterinary sciences, dentistry and medicine
- **V group** (arts): fine arts and art & design (3.75), music (4.5), and theatre and dance (5.5)

In the allocation of the research allotment, account is taken of the financing of graduate schools, which

is decided by the Ministry of Education on the basis of Academy of Finland evaluations and the proposal of the graduate school follow-up group.

The size of the societal services appropriations is based on open university provision and other non-core services. The financing of open university is based on the target and realised numbers of full-time equivalent student places (2/3–1/3).

The funding allocated to other societal services is intended as support especially for equipment-intensive activities and those that reinforce the university's regional impact. The financing is partly calculated on the basis of R&D expenditure and research personnel.

### **National tasks**

National tasks are activities of major significance in terms of national education, research or cultural policies and, as such, have been assigned to a university in legislation. These tasks are not directly connected with degree education (e.g. the National Library). The financing of national tasks also covers posts based on cultural exchange agreements, and languages and cultures less widely known in Finland. The government funding only covers part of the costs and the universities must provide the rest.

### **National programmes**

The multiannual national programmes initiated by the Ministry of Education derive from the Government Programme, the Development Plan for Education and Research or the Ministry's own resolutions.

Programmes relating to national priorities in the period 2004—2006:

- Development of studies (two-cycle degree structure, student selection, quality assurance)
- Virtual university
- Development of teacher training
- National health project
- Language technology
- Business know-how
- Biotechnology

- Russia action programme
- Information industry
- Regional development

### **Project funding**

Project funding is allocated to universities' own ventures which support national object-setting, to universities' joint networking projects, and the furnishing and equipment of new buildings. This aid is targeted at strategic priorities which are a special focus in the year concerned. The aim is that universities take care of smaller projects by means of internal arrangements. The condition for the Ministry subsidy is that universities provide part of the financing themselves. The purpose is to ensure the university's commitment and thereby the continuity of the project even when the Ministry financing ends.

When necessary, questions relating to national cooperation networks shall be agreed in the performance negotiations. Project funding is primarily allocated to cover the cost of coordination in joint projects. The financing of projects necessary for the operation of educational networks is agreed with the university coordinating the project. Development projects implemented as educational networks must be a model of action which supplements the operations of the university institutes and enhances profile definition, structural development, cost-effectiveness and productivity.

### **Performance-based funding**

Since 1998 part of university resources have been allocated on the basis of performance. Performance-based funding rewards universities for the quality and effectiveness of their operations and gives incentive to develop operations in these areas. The performance-based funding is allocated according to performance criteria relating to education and research policy objectives. The criteria are the same throughout the agreement period, with emphasis on centres of excellence, which are designated on the basis of evaluations and highlight the quality aspect. Universities can decide independently to

what extent they allocate these funds to their centres of excellence or use it as their internal performance-based financing. The performance-based funds represent about 2.4% of universities' operational expenditure.

The performance criteria for 2004—2006 are:

#### **Quality of research and artistic activity**

- Centres of excellence in research, designated by the Academy of Finland
- Academy of Finland financing
- Other external research funding
- Centres of excellence in artistic activity, designated by the Arts Council of Finland

#### **Quality, efficiency and effectiveness of education**

- Centres of excellence in education, designated by the Higher Education Evaluation Council
- Universities of excellence in adult education, designated by the Higher Education Evaluation Council
- Progress in studies: credit accumulation, the proportion of Bachelor-level graduates, duration of studies before graduation
- Graduate placement: the unemployment rate and changes in it
- Internationalisation: student exchanges, balance in exchanges, degrees awarded to foreign students

#### **Institutional review**

According to a Ministry of Education resolution, institutional reviews appraise to what extent the personnel's view is taken into account in university activities, the measures taken to strengthen societal impact, and the university's capacity for renewal.

### **2.1.2 KOTA database**

*<http://www.csc.fi/kota/kota.html>*

KOTA is a statistical database maintained by the Finnish Ministry of Education. It contains data describing university performance by institutions and by fields of study from 1981 onwards. The

universities are responsible for the accuracy of the data they provide.

KOTA has been designed to give the Ministry of Education and the universities access to data needed in the planning, monitoring and evaluation of university operations and management. In the further development of KOTA, overlapping data collection has been pruned and concepts have been unified. The technical design has been constantly improved from 1986 onwards. In response to changes in the operational environment, the data content has been gradually expanded and old concepts have been redefined.

The database is accessible in an inter-university network and stored at the Center for Scientific Computing, which is responsible for the technical design.

Each university has a KOTA liaison responsible for the updating of data, exchange of information and other contacts. The liaison feeds the previous year's data directly into the database at the beginning of each year. Part of the data are updated from materials provided by the National Board of Education, the Centre for International Mobility (CIMO) and Statistics Finland.

The data content has become progressively more up-to-date and reliable, which has promoted the applicability of KOTA. Most information concerning the previous year is available in KOTA in January-February.

After gradual expansion and inclusion of new data groups, KOTA now contains the following data mainly classified by university and field of study:

- Applications and admissions
- Students
- Foreign students
- Degrees
- Duration of studies
- Graduate placement
- Teaching staff
- Other staff
- Appropriations
- Costs per performance areas
- Premises
- Continuing education

- Open university instruction
- Researchers' and teachers' visits abroad
- International student mobility
- Target number of degrees
- Scientific publications
- Courses taught in foreign languages
- Practice schools

In addition to the statistical data, KOTA contains instructions for use and data compilation, definitions and classification of data. It includes a handbook which defines the common data basis and classifications required for national university statistics and for the compilation of data. The handbook is jointly updated by the Ministry of Education and Statistics Finland. The database also contains contact information for the KOTA liaison in each university.

Today the KOTA database constitutes an essential monitoring tool for performance management. However, compared with state-of-the-art systems, it is somewhat outdated in as regards both technology and content. The many changes that have taken place in the public sector and in the academic environment necessitate a major overhaul of the KOTA database. In view of this, a process for developing the database into an interactive system which caters better for the needs of performance management and decision-making and which contains not only numerical data but also elements relating to quality and impact.

## 2.2 Academy of Finland

The Academy of Finland is an expert agency which allocates research funding in the Ministry of Education sector. It promotes high-standard scientific research by means of quality-based, long-term funding, science and research policy expertise and measures to strengthen the status of science, scholarship and research in society.

In 2004, the Academy supports research, mostly university research, with 208 million euros, which is about 13 per cent of the government R&D input in Finland.

The Academy of Finland has several forms of financing at its disposal for different purposes. It finances research projects, research programmes, centres of excellence in research, researcher posts, researcher training and international cooperation.

The financing decisions made by the Academy are based on a scientific appraisal of the applicant and the research plan. The Academy uses external Finnish and foreign experts in the choice of projects to be financed. The allocation of research financing is decided by the Academy's Research Councils and Board, whose members are appointed by the Government for three years at a time.

The Ministry of Education steers the Academy of Finland operations by means of target outcome using three-year performance agreements, in which the Ministry and the Academy agree on the most important research policy objectives for three years and on the next year's resources. In the intervening years, they review the objectives and agree on the following year's resources. (The 2004–2006 agreement in Appendix 1)

In the state budget, the Academy's resources are in the form of financing authorisations. The Academy is authorised to commit financing for four years.

The Academy reports on the achievement of objectives and the use of the funds in its annual report. The Ministry of Education gives written feedback on the Academy's activities annually. (The 2002 feedback in Appendix 2)

The management procedure between the Ministry of Education and the Academy of Finland was improved in 2002 within the scope of a project for developing performance management in the science policy sector. In this context, the indicators used were further developed.

## 2.3 Polytechnics

### 2.3.1 Steering system in polytechnics

The polytechnics are governed by the Polytechnics Act and Decree. This legislation determines their status in the education system, their mission,

administration, management, evaluation, teaching and degrees, the eligibility of polytechnic graduates for further studies, teachers' qualification requirements, and the principle of free polytechnic degree education.

Major policy guidelines and development targets are determined at a general level in the Government Development Plan for Education and Research, which is adopted for six years and revised every four years. Performance management is the most important tool used by the Ministry of Education in steering the operations of the polytechnics. This is strategic steering based on the national polytechnic policy. The Ministry of Education and the polytechnics have agreed on objectives and target outcome since 1994. Initially annual agreements, they are now concluded for three years, the current one for 2004–2006. Funding and education supply are determined for each year separately.

The performance agreements are the result of a year-round process:

- In the autumn, the Ministry of Education discusses the following year's agreement and the objectives to be set with the polytechnic rectors and with stakeholders, such as the polytechnic student organisation, the Association of Local and Regional Authorities and labour market partners.
- In November, there is a seminar on objectives and performance management for representatives of the Ministry of Education, polytechnic management and the owners of polytechnics.
- In December, the Ministry issues guidelines to help the polytechnics draw up their proposals.
- In early February, the polytechnics submit their proposals.
- In March, there is a meeting of rectors, who discuss the most important issues to be negotiated.
- The Ministry of Education gives feedback to each polytechnic individually.
- Further negotiations are held in March-April.
- In September, after the negotiations have been concluded and the Government has

published its budget proposal, the agreements are signed.

The agreements between the Ministry of Education and the polytechnics have the following structure:

- The polytechnic's own assessment of its performance
- Objectives common to the polytechnic system as a whole
- The mission of the individual polytechnic
- Goals for structural development
- Number of study places by fields of study, including adult education
- Other development objectives
- Development of teaching
- Regional development, cooperation with the world of work, and R&D
- Internationalisation
- Staff development
- Resources: core funding, project funding, performance-based funding.

### **Funding**

The owners of polytechnics (local authorities, joint municipal bodies or private organisations) receive all their core funding from the government. Under legislation, the government provides 57% of the core funding and local authorities the remaining 43%, based on their populations. In other words, the local authority's share does not depend on how much education it provides or how many of its residents are participating in education, but solely on the number of residents.

The government's share is recorded in the state budget as a net sum. The local authorities' share of the financing also goes through the government. If the education provider is a local authority, its own share is deducted from the sum allocated, whereas joint municipal boards and private educational providers receive all their core funding.

Although local authorities have no obligation to use all the statutory government aid specifically on education and training, the Ministry of Education and the polytechnics have agreed in the performance



negotiations that the polytechnics shall spend the core funding they receive on running costs in full.

Polytechnics obtain almost all their financing for degree programmes from public funds and charge no tuition fees. They also receive external funding, mainly for continuing education services and R&D. This funding amounts to 22% of their budgets.

The polytechnics receive three kinds of government funding:

### **Core funding**

Generally speaking, the system of core funding includes both statutory aid and subsidies for running costs and new establishment projects. It is calculated on the basis of unit costs.

The main characteristics of the unit cost system are the following:

- The unit costs are determined in advance for the following year; they are not influenced by any decisions taken by a local authority or other polytechnic owner concerning educational arrangements or any funds supplied by them for these purposes.
- The criteria used in granting and calculating the co-financing shares do not govern the actual use of the funds. The financing of polytechnics is included in the overall sum of statutory state aid allocated to the local authorities, who have considerable leeway in allocating the resources at their disposal.
- The local authorities' co-financing share (43%) is based on unit costs, which are the same for all the local authorities.
- Statutory government aid is intended to cover running costs relating to polytechnic degree education and long-term specialization programmes.
- The unit costs are calculated per student. The funds are paid directly to the owner of the institution which has admitted the student.
- The unit costs are calculated from realised expenditure every two years. Unit costs are different for different fields of study.
- To determine the basis for the following year's

statutory government aid, the unit prices are multiplied by the number of students.

### **Project funding**

The polytechnics also receive project funding. In recent years, this has been predominantly targeted at the polytechnic support programme (staff development training, internationalisation, development of information networks and virtual learning environments, and careers and recruitment services); basic prerequisites of R&D; and the development of the Virtual Polytechnic. Project funding is allocated to joint ventures between all the polytechnics, with focus on the development of studies in the period 2004–2006. Growing resources have also been allocated to polytechnics' regional projects.

Polytechnics always provide part of the funding for these projects themselves.

### **Performance-based funding**

The performance of polytechnics is assessed on the basis of five theme entities: the development of teaching and teaching methods; the attraction of the education and progress in studies; relevance to the world of work and R&D; regional impact; and operations and capacity for renewal. The performance criteria have been revised and determined by a broad-based committee. Some performance-based funding has also been allocated to polytechnics on the basis of evaluations made by the Higher Education Evaluation Council, which in 2002 reviewed centres of excellence in teaching and in 2003 centres of excellence in regional impact. In 2003, 1.7 million euros was allocated on the basis of general performance criteria and 1.7 million euros to centres of excellence selected on the basis of the evaluations.

The Government allocates subsidises to certain national projects of a permanent nature, as in the university sector. These include web connections and information networks, the polytechnic monitoring and evaluation database, the student selection system, and library systems.

### **Reform of the financing system**

There are plans for overhauling the system of polytechnic financing. The aim is a clear, fair and model which encourages development and takes the totality of a polytechnic's operations into account.

### **2.3.2 Monitoring and evaluation database (AMKOTA)**

The performance agreements concluded by the Ministry of Education, the organisations running polytechnics and the polytechnics constitute a significant mechanism for translating major higher education policy objectives into each polytechnic's reality.

The monitoring and evaluation of the objectives set for the polytechnic system are an important part of the steering system. The evaluation and monitoring database AMKOTA is a key tool for the Ministry in information-based steering and management.

The AMKOTA system has been developed from a traditional statistical database into a decision-making tool for the Ministry and a channel of communication in the performance negotiations between the Ministry of Education and polytechnics.

#### **Data content and data production**

##### **Data on polytechnics' operations**

- The polytechnics use web forms or transfer files to update data not collected by Statistics Finland and data which, owing to the production timetable, are not otherwise ready in time for the negotiations.

##### **Licence data**

- The provision of polytechnic education is based on a licence issued by the Government.

##### **Degree programmes**

- The Ministry of Education makes decisions concerning degree programmes based on proposals submitted by the polytechnics,

determining what programmes and degree education each polytechnic offers. Polytechnics submit their proposals through AMKOTA. The Ministry makes its decisions with the help of AMKOTA; the necessary information is recorded in the database and the decision is printed out and signed.

##### **Entrant places**

- Polytechnics make proposals for the number of entrant places for the following year, divided between the degree programmes determined in the Ministry's decision. Both the decision and the entrant data are used in the writing of the study guides and in the joint national application system.

##### **Project proposals**

- Each polytechnic and the Ministry of Education agree on project funding in the performance negotiations. The project proposals are submitted through AMKOTA. It contains a form with sections for priorities, the number of projects, and cost and financing data and with a predefined structure for describing the purpose of the project.

##### **Data from Statistics Finland**

- Statistics Finland has been contracted to produce statistics, publications and other materials, which the Ministry of Education uses for planning and evaluation together with other AMKOTA data.
- The statistics and data collection are primarily developed by Statistics Finland. The principle is to avoid overlapping and doubling in data collection and to acquire data from the source where it is recorded when a matter is processed. Statistics on polytechnic R&D are also compiled by Statistics Finland. The Ministry of Education buys them as files from which AMKOTA users can retrieve data in the form of reports or statistics.

### **Development of information management**

The production of data needed for polytechnic evaluation and performance management and its development, the performance criteria and the quantification methods are re-examined regularly. The three-year agreements provide the time span within which development objects are examined.

The database is being expanded and the processing of the data improved to develop AMKOTA into a versatile tool for performance management and performance negotiations between the Ministry of Education and polytechnics.

The development also caters for the needs of legislative work, financing and cost control. Data

production must be capable of responding to new needs ever more rapidly. Some data needs are occasional, others periodical, while other needs are constant (student numbers, graduation rates). Data enquiries entail an interactive system.

### **OPALA, student feedback system**

OPALA is a joint Ministry-polytechnic system for collecting student feedback. The OPALA questionnaire system is used to collect current information about the placement of polytechnic graduates and students' opinions of education and work practice.

Ministry of education  
22 December 2003

### **Performance agreement between the Ministry of Education and the University of Joensuu for the period 2004–2006 and resources for 2004**

#### **AIMS**

The operations of universities are governed by the Universities Act and the Development Plan for education and research adopted by the Government on 4 December 2004.

The mission of the University of Joensuu, as part of the international and national academic community, is to conduct research and supply education in response to needs in eastern Finland in particular and provide relevant services to the community in its fields. The University's knowledge fields are multidisciplinary, broad-based teacher training, educational research and life course studies; forests, other renewable resources and the environment; specialised high technology; and social development and cultural interaction in border regions and fringe areas.

The University shall enhance its strategic work in support of its profile definition.

The aim of the universities is to contribute through their own work to cultural, social and economic welfare in Finnish society. Universities shall take the principle of sustainable development into account in all their activities. The universities shall aim at a high international level and quality in research, researcher training, education and artistic activity.

The universities shall carry on the development of comprehensive quality management and its methods. The findings of evaluations shall be used in quality enhancement.

The universities shall improve conditions for research and education by developing their library and information services and the ICT infrastructure in support of these services. The universities shall develop the provision of virtual teaching as part of the overall educational development.

The universities shall develop their work communities in order to improve their competitiveness as employers as well as take care of the work capacity and satisfaction of their personnel.

#### **Research and researcher training**

In their research activity, the universities shall focus on high-quality, internationally competitive and ethically sustainable research.

The universities shall enhance prerequisites for professional researcher careers and pay special attention to promoting equal opportunity in the academic community. Graduate schools shall be developed as the principal track to a doctorate, which is the primary goal of postgraduate education. The universities shall step up researcher training with a view to lowering the mean age of new PhDs to 32 by the end of the contract period. The

graduate schools shall actively recruit foreign students and researchers. The aim is that in 2006 ten per cent of the graduate school students are foreigners.

In the University of Joensuu, the average annual number of doctorates in the period 2004–2006 shall be 68, with the following breakdown:

Theology	2
Humanities	10
Education science	9
Social sciences <sup>1)</sup>	7
Psychology	2
Natural sciences	27
Agriculture-forestry	11

<sup>1)</sup> The target for doctorates in the Business Administration field at the Lappeenranta University of technology includes 1 post-graduate student studying at the University of Joensuu.

### Undergraduate education

Each university shall draw up an admissions strategy with a view to developing the student selection system. The strategy must determine measures for stepping up student placement, reducing the number of selection units and streamlining the selection procedures at the national level and in each university. The aim will be that by the end of the performance agreement period 2004–2006, at least 50 per cent of new students are the same year's matriculated students.

The quality of teaching and the systems for planning, guiding and monitoring studies shall be developed with a view to intensifying graduation and shortening study times especially in the humanities, mathematics and natural science, and technology fields. Universities shall introduce personal study plans devised together with students in all fields by 2006. The universities shall prepare and put in place the two-cycle degree system and determine the extent of studies as outlined in the report of the Ministry of Education committee for the development of university degree structure (OPM:n muistioita 39:2002) in order to enable

the new structure to be adopted flexibly from the autumn term 2005–2006 onwards.

In the targeting of their education provision, the universities shall especially cater for the changing needs of the national health project, teacher training and information industries. In the targeting of the education supply, universities must avail themselves of the possibilities of structural development.

The target annual number of entrants for the University of Joensuu in the period 2004–2006 shall be 1,280.

The average target for the annual number of Masters' degrees in the period 2004–2006 shall be 760, of which 184 in subject teacher training with the following distribution:

	Master's degrees	Of which subject teachers
Theology	35	10
Humanities	170	70
Education science	245	25
Social science <sup>2)</sup>	100	7
Psychology	15	2
Natural sciences	150	70
Agriculture-forestry	45	

<sup>2)</sup> The target for Master's degrees in economics at Lappeenranta University of Technology includes 25 students studying at Joensuu.

### Internationalisation

Universities shall intensify and increase international cooperation and networking with a view to making Finnish universities active and competitive players and valued partners especially in the European Higher Education and Research Area. Universities shall increase cooperation with Russia and strengthen Russia know-how in Finland.

Universities shall increase their supply of English-language education in their respective

strength areas and pay special attention to the quality of teaching and teaching methods. Universities shall recruit foreign degree students primarily to Master's programmes and postgraduate education. Student guidance shall take the special needs of foreign students into account. The supply of instruction in Finnish/Swedish language and Finnish culture shall be increased.

Annually 260 students in Master's programmes shall study abroad for three months or longer.

### **Societal services**

Universities shall boost the vitality of their regions by networking with the foremost players in the region. New university units shall not be established, but regional university centres and universities' other regional activities shall be concentrated into sufficiently large entities which have potential to achieve a high quality and effectiveness in their operations. Universities shall cooperate with polytechnics as outlined in jointly devised strategies.

Universities shall enhance their contacts with business and industry by strengthening their business know-how, their innovation services and the commercialisation of their research findings. The prerequisites of universities to support entrepreneurship shall be improved.

Universities shall promote employment and equal opportunity in education by means of their adult education provision. Adults' opportunities to study for university degrees shall be improved by means of Master's programmes and open university supply (Bachelor's degrees).

The annual target for students coming via the open university track to the University shall be 115.

The annual target for open university instruction shall be 1,150 full-time equivalent student places.

### **Supplementary funding**

Universities shall widen their funding base by supplementing the direct budgetary appropriations with other financing. The supplementary funding must support the universities' basic mission and relevant targets.

The aim shall be to achieve a high standard in the procedures, administration and monitoring of the supplementary funding as part of university quality management.

### **Construction**

The aim is that the Aurora II building will be completed during the agreement period.

### **Practice schools**

The aim of the practice schools shall be a high level of activities in support of teacher training and close interaction with the University. Practice schools shall ensure the quality of curriculum design and teaching and develop diversified practice teaching and the use of educational technology.

## **Resources in 2004**

### **Operational expenditure**

With a view to achieving the targets determined in the performance agreement of 2004–2006 it is proposed that the Government include in its 2004 budget proposal to Parliament the following appropriations in the university sub-item (29.10.21)

	€ in 2002	€ in 2003	€ in 2004
Core funding	42,172,000	45,087,000	<b>50,874,000</b>
For national societal tasks	1,985,000	1,985,000	
For national programmes	3,048,000	3,203,000	<b>2,381,000</b>
Project funding	959,000	582,000	<b>870,000</b>
Performance-based funding	1,059,000	675,000	<b>764,000</b>
Total	49,223,000	51,532,000	<b>54,889,000</b>
Transfers from the previous years	7,743,000	8,068,000	
Add. budget		900,000	

The target income from university business activities in 2004 shall be 2,000,000 euros and the target profit 100,000 euros (5% of income). The target income from research cooperation shall be 3,500,000 euros. The estimated amount of endowments is 100,000 euros.

### Core funding

The core funding includes

- 729,000 euros for open university provision
- 3,141,000 euros for graduate school salary costs
- 1,873,000 euros for other societal tasks, the remainder of the funding needed to be provided by the University from its operational expenditure.

The core funding includes extra 1,995,000 euros to cover the pay raises agreed in the collective agreement of 30 November 2002 (in 2003 and 2004).

The core funding includes an additional 31,000 euros as a transfer of one person-year from sub-item 31.24.21.

### National financing

A total of 2,381,000 euros for national programmes as follows:

- Information industry programme 498,000 euros, of which
  - 189,000 euros for graduate entry education (based on intakes agreed upon earlier)
  - 309,000 euros for improving the prerequisites of education and research in information industry fields.
- Virtual University projects, 636,000 euros, of which
  - payable to the coordinating university
    - 300,000 euros for the Eastern Finland Virtual University
    - 168,000 euros for the OVI project and
    - 168,000 euros for virtual teaching projects prioritised by the University and to relevant staff-development training.
- Teacher training as specified in the Appendix, 460,000 euros (775,000 euros in 2005 and 745,000 euros in 2006).
- Business know-how development (2004–2006), 300,000 euros
- Border Research, EU & Russia, 120,000 euros, (150,000 euros in 2005 and 180,000 euros in 2006)
- Development of the study process (Graduation in five years, 2004–2006), 100,000 euros
- Regional development in higher education, 200,000 euros, for enhancing the mathematics, physics and chemistry knowledge base in teacher training (70 persons /year, 150,000 euros in 2005–2006)
- Language technology (2004–2005), 67,000 euros

### Projects

The University's projects

- 500,000 euros for the development of the tourism education network and other Savonlinna operations (2004–2006)
- 70,000 euros for the development education relating to cultural content in the media (2004–2006)

- 100,000 euros for the development of learning environments (2004–2006)

#### Equipment

- 200,000 euros for a physics clean room

#### Performance-based funds

- A total of 764,000 euros of performance funding is proposed to be payable to the University's operational expenditure sub-item on the basis of the centre of excellence in research, the centres of excellence in teaching, students' progress, Academy of Finland funding and other external financing.

#### Practice schools

- Resources proposed for the practice school sub-item:

	€ in 2002	€ in 2003	€ in 2004
Core funding	9,720,000	9,823,000	10,294,000
Project funding	117,000	12,000	14,000
Performance funding	17,000	15,000	15,000
Total	9,854,000	9,850,000	10,323,000
Transfers from previous year	1,353,000	1,326,000	
Add. budget	175,000		

Arvo Jäppinen  
Director General

Markku Mattila  
Director

The netting income from the practice schools is estimated at 120,000 euros of which 80,000 euros from business activities and 40,000 euros from co-financed activities.

The core funding includes an extra 387,000 euros to cover the pay raises (in 2003 and 2004) agreed in the collective agreement of 30 November 2002.

The core funding includes 15,000 euros of performance-based funding.

The core funding includes 14,000 euros for the project Information strategy for and research.

The renovation of the Joensuu normal school will mean an increase of 151,000 euros in facilities expenditure: 34,000 in 2002 and 84,000 in 2003. The extension of the Länsikatu school (year-classes 1–2 and special-needs classes) shall be carried out.

#### Monitoring and reporting

The achievement of the targets and other implementation of this agreement shall be reviewed annually in connection with the performance negotiations. Apart from the oral feedback in the negotiations, the Ministry of Education will give feedback in writing concerning the quality of reporting, the effectiveness of operations, and development needs in strategic priority areas.

The University shall supply the requested data to the KOTA database by the dates specified and prepare for changes in its own monitoring and reporting systems owing to the development of KOTA.

Perttu Vartiainen  
Rector

Petri Lintunen  
Director of Administration

#### Appendices

Appendix 1. European Structural Fund programmes

Appendix 2. Financing of societal services included in the core funding 2004–2006

Appendix 3. Teacher training development programme 2004–2006



## Appendix 1 (Joensuu)

Ministry of education  
Department for Education and Science Policy

### Structural Fund programmes

- M.A. (Educ.) E-learning master (Savonlinna)
- M.A. (Soc. Sc.) social geography, leisure and recreational service (Savonlinna)
- M.A. (Soc. Sc.) regional and community development
- M.A., German, English, Russian, translation technology (Savonlinna)
- M.A. (Educ.) arts and crafts, design and technology (Savonlinna)
- International Master's Programme for Tourism Studies (Savonlinna)
- Construction: reservation for additional costs incurring from the construction of the Savonlinna tourism cluster

The condition for the projects is that they otherwise fulfil general requirements set in the programme document /policy /the overall action. The Ministry of Education reserves its opinion on the adequacy of project funding.

## Appendix 2 (Joensuu)

Ministry of Education  
Department for Education and Science Policy

### Financing of societal tasks included in the core funding (excluding open university instruction), 1 000 euros/year

#### University of Joensuu

##### **Societal service tasks included in the core funding**

Orthodox theology	200
Training of student counsellors, special education teachers and kindergarten teachers	450
Development of services relating to the utilisation of research findings and strengthening of regional impact including	1,223
• Karelian Institute	
• Development of the Savonlinna unit and the science park	

Ministry of Education  
Department for Education and Science Policy

## Teacher training development programme 2004–2006

The target for subject teacher training at the University of Joensuu shall be a minimum of 184 graduates annually. The annual target for the humanities shall be at least 70 subject teachers. In the humanities, the University shall focus on subject teacher education, especially English teachers, and take note of current small need for history teachers. In the natural sciences, the target shall be at least 70 subject teachers, especially in response to the need for in mathematics, physics and chemistry

teachers. In education science, the University shall focus provision on class teacher training at least to the present extent and take note of the growing need for pedagogical qualification studies. The annual target in special education shall be a minimum of 36 special-needs teachers and in pupil/student guidance a minimum of 25 graduates.

*The University of Joensuu* shall implement the programme for increasing teacher training in 2004–2006 as follows:

Project	2004 (1 000 €)	2005	2006
Teachers' pedagogical qualification studies in Eastern Finland (50)	100	100	100
English teachers (- major 10/year - minor 10/year - graduate entry 12/year) The project is proposed start in 2005.		120	140
Arts and crafts teaching network KÄSNET	30	35	35
Mother tongue and literature teachers (- major 10/year - minor 16/year - supplementary studies 4/year) The project is proposed start in 2005.		200	200
Swedish and German teachers (- major 5/year - minor 4/year - graduate entry 7/year)	80	70	70
Special-needs kindergarten teachers (30/year)	250	250	200
<b>Total</b>	<b>460</b>	<b>775</b>	<b>745</b>

Ministry of Education  
19.12.2003

### Performance agreement between the Ministry of Education and the Academy of Finland 2004–2006

#### Mission statement: in the best interest of science and scholarship

The Academy of Finland promotes high-standard research with long-but fixed-term funding based on scientific quality, reliable evaluation, science policy expertise and varied global cooperation. Through its operations, the Academy improves the quality of Finnish research and knowledge of Finnish research in the world and strengthens the status of science, scholarship and academic research in society. The Academy enhances the capacity of research for renewal, creates conditions for diverse research activity and promotes wide-scale utilisation of research findings for the best of welfare, culture and the environment.

#### Objectives

##### **Main objective: Finnish research is of a high quality and visible**

The Academy of Finland shall implement the objectives set in the Government Programme, Government strategy document and the Development Plan for Education and University Research for 2003–2008, to be adopted by the Government on xx.yy.2003, and other objectives set for the Academy.

#### **Result area 1: Overall development of research prerequisites and environments**

The Academy of Finland shall for its part strengthen the international competitiveness of Finnish research by financing high-standard research and especially supporting research fields which with an additional input can be expected to achieve international breakthroughs. The Academy shall allocate resources to support new research areas arising from topical research problems and scientific developments. The Academy can support research areas which are creating their research culture and internationally significant fields in which Finnish research is lagging behind international development.

The Academy shall see to long-term research funding with a view to ensuring that researchers and research teams have adequate prerequisites for research. The Academy shall promote the formation and development of creative research environments. The Academy shall work actively to intensify national and international research programme cooperation and strengthen international networking between top-level research and step up Finland's participation in international science organisations. The Academy of Finland will step up international cooperation with major partner countries.

**Objective 1.**

In allocating research funding, the Academy of Finland shall take care that Finnish research is of a high standard, varied and capable of renewal also in terms of international comparison.

**Result area 2: Measures relating to researcher training**

The Academy shall focus its activities on developing post-doctoral research careers. About one researcher in five should have an opportunity to train themselves as professional researchers within the Academy and university systems. Efforts shall be made to coordinate the development of the post structure in the Academy and in universities with a view to promoting professional research careers.

Young people's research careers shall be promoted and obstacles to gender equality removed. International research cooperation and researcher mobility shall be supported.

The Academy shall for its part promote efficient researcher training by supporting the activities and internationalisation of graduate schools and the achievement of the quantitative and qualitative targets set for doctorates. Pre-doctoral researcher training shall be supported through research projects.

**Objective 2.**

Through its measures to promote professional research careers, the Academy of Finland shall for its part make sure that Finland has a sufficient number of internationally high standard researchers.

**Result area 3: Science policy expertise**

The Academy of Finland will work proactively in developing the European Research and Innovation Area.

The knowledge base for science policy planning, evaluation and foresights shall be reinforced in cooperation with other national and international

organisations responsible for science policy, foresight and research funding. Of special importance is the project for developing indicators for research impact analysis.

The Academy shall monitor and assess the quality and effectiveness of its own operations in order to be able to fully realise its operational idea and strategic aims in a changing operational environment.

The quality and effectiveness of the operations of the Academy's Administrative Office shall be improved through procedural and structural development and information management. The reliability of decision-making, evaluation methods and the use of experts shall be further developed. The impartiality and transparency of evaluation criteria shall be assured.

**Objective 3.**

The Academy of Finland is a nationally and internationally valued research funding and science policy organisation.

**Result area 4: interaction between research and society**

The Academy of Finland shall upgrade its expertise in questions of good scientific practice, research ethics and intellectual property rights. The Academy shall for its part promote efficient research utilisation for the needs of citizens, society, and business and industry. The Academy, together with other research funding partners, shall promote opportunities for researchers and universities to utilise research findings.

The Academy shall be responsible for strengthening the status and positive image of research in society. The Academy shall for its part make research and scientific work known amongst decision-makers, citizens and especially young people.

**Objective 4.**

The Academy of Finland shall for its part see to it that research is utilised on a wide front for the best of the environment, welfare, culture and the economy.

## Other aims

The Academy of Finland shall develop its work community with a view to ensuring its personnel's good work capacity and work satisfaction.

The Academy of Finland shall undertake evaluations of the state and level of research during the target outcome period.

## Resources in 2004

With a view to achieving the aforementioned objectives, the Academy of Finland will be allocated the following resources recorded in the 2004 budget:

Sub-item (1 000 euros)	2002 financial statement	2003 Budget + Add. budget proposal	2004 Budget
29.88.21 (operational expend.)	26,131	26,104 + 1,545	31,333
29.88.25 (certain publications)	303	320	282
29.88.50 (research funds)	59,701	77,649 + 2,006	104,184
29.88.53 (Lottery funds)	62,588	62,050	61,725
29.88.66 (Intl. contributions)	9,149	10,261	10,312
29.10.22.1 (Joint university expenditure)	42	20	
<b>Total</b>	<b>149,446.6</b>	<b>176,404 + 3,551</b>	<b>207,836</b>

### Operational expenditure

The appropriation proposed for the Academy's sub-item 29.88.21 in the 2004 budget is 31,333,000 euros.

### Research funds

In 2004 the Academy of Finland is authorised to make new commitments to research projects from its research sub-items (29.88.50 and .53) to the value of 172,590,000 euros. The commitment authorisation is estimated to incur the following expenditure to the government:

Authorisation	euros 1,000	2003	2004	2005	2006	2007
2000	112,685.90	23,176.30	20,434.80			
2001	140,436.90	39,322.30	23,865.90	12,630.90		
2002	148,090.00	53,601.50	41,492.00	21,898.10	7,182.70	
2003	152,590.00	22,451.90	53,406.50	45,777.00	30,954.60	
2004	172,590.00		25,213.50	60,406.50	51,777.00	35,193.00
<b>Total</b>		<b>138,552.00</b>	<b>164,412.70</b>	<b>140,712.50</b>	<b>89,914.30</b>	<b>35,193.00</b>

A total of 164,412,700 euros is proposed for research projects in sub-items 29.88.50 and .53 in the 2004 budget to cover the expenditure due to

the commitments. Of these, 20,000,000 euros shall be allocated to university infrastructure projects.

The amount in sub-item 29.88.50 includes 1,496,000 euros for co-financed research projects.

**Finland's contributions to international organisations**

A sum of 10,312,000 euros is proposed for Finland's contributions to international research institutes (CERN, EMBL, EMBC, EUI), the payment of which has been assigned to the Academy of Finland (sub-item 29.88.66).

**Separate projects**

A sum of 282,000 euros is proposed to be payable from sub-item 29.88.25 for the editing and acquisition costs of the J.V.Snellman bicentenary publication series.

Arvo Jäppinen  
Director General

Sakari Karjalainen  
Director

## Reporting

The Academy of Finland shall report on the achievement of the objectives and the use of funds in its annual report.

The achievement of the target outcomes shall be monitored in each result area by means of the indicators presented in the Appendix.

Reijo Vihko  
President

Anneli Pauli  
Research Director

## Indicators by result areas

### **Result area 1:**

#### **Overall development of research prerequisites and environments**

1. High level of research
2. Diversity of research
3. Renewal of research

### **Result area 2:**

#### **Measures relating to researcher training**

1. Support to professional research careers
2. Promotion of women's research careers and gender equality
3. Networking and internationalisation in research

### **Result area 3:**

#### **Science policy expertise**

1. Nationally and internationally valued expert organisation
2. Cooperation between players in the innovation system and internationalism of the research administration

### **Result area 4:**

#### **Interaction between research and society**

1. Promotion of the utilisation of social and technological innovations generated in research
2. Visibility and public image of science and scholarship

### **Other objectives**

1. Personnel's good work capacity and job satisfaction
2. Reviews and evaluations of research and its level

## Feedback to the Academy of Finland in 2002

The Ministry's feedback is based on the Academy's 2002 annual report, other written and oral information and the performance negotiations conducted in spring 2003.

The development of performance management in the science policy sector has been outlined in the report of a joint Ministry – Academy development project (*Tiedepolitiikan toimialan tulosoajauksen kehittäminen, opetusministeriön työryhmien muistioita 46:2002*). The development will continue along the lines determined by the committee, especially as regards performance indicators, in autumn 2003.

Since the results of this development cannot yet be used for feedback, the Ministry of Education will at this stage limit its comments to the following general aspects.

### 1. Quality of the financial statement and annual report

- The annual report is lucid
- Good linkage between aims and operations in the report
- A wealth of detailed information
- The financial statement has been audited and approved by auditors

### 2. Achievement of objectives

- The objectives have been well achieved
- The Academy's operations can be considered successful in relation to its resources
- Finnish science policy is judged to be successfully implemented

- Support to women's and especially young researchers' careers and the removal of obstacles to research careers still warrant further attention

### 3. Development proposals

- Further development of activity-based cost calculation
- Production of comparable annual data on costs
- Development of data on and description of impact
- Development of cost-effectiveness and productivity indicators
- The monitoring of the use of the financing authorisation needs honing

### 4. Other

- Research on business know-how will be evaluated
- The Academy will appoint a working group to develop evaluation of the state and standard of research

The evaluation of the Academy's financing instruments and best practices will be completed in early 2004. The recommendations and proposals will be taken into account in the performance negotiations of spring 2004.



### Performance agreement between Rovaniemi Polytechnic, Rovaniemi Municipal Federation of Education and Ministry of Education for 2004–2006

Rovaniemi Polytechnic, the Rovaniemi Municipal Federation of Education and the Ministry of Education hereby agree on the Polytechnic's target outcome for 2003 under Section 8.2 of the Polytechnics Act (351/2003).

#### **1 Outcome analysis**

The Polytechnic's own performance analysis 2002 is annexed.

#### **2 Common objectives**

Polytechnics and universities together form the higher education system. The division of work between the universities and the polytechnics shall be clarified with a view to enhancing the performance of the higher education system. The aim is a system which is transparent and comprehensible for students and employers and in which both sectors are developed according to their strengths. The higher education system shall be developed as an internationally competitive whole which is responsive to regional needs.

In the development of polytechnics, the aim is to boost the performance of the polytechnic network, to improve the quality of the education it provides and to enhance its regional impact. The

polytechnics shall consolidate their contacts with local business and world of work and with local higher education and other educational establishments. Measures shall be taken to enhance the prerequisites of polytechnic libraries and increase the use of information networks. The Ministry of Education shall support the use and development of library services and the FUNET network by means of centralised funding.

The objectives of polytechnic degrees shall stress the knowledge and development requirements in the world of work. Measures to enhance the quality of polytechnic education shall be continued. Care shall be taken to organise a sufficiently varied provision of studies and internship for students. Special attention shall be paid to individual study plans, credit transfer and completion of studies. The priorities in development shall be guidance and advisory services, work practice and virtual education.

The role of polytechnics in the regional innovation system shall be strengthened. Polytechnic R&D shall be intensified to serve the region and local working life, as well as education. Polytechnics and universities shall implement the jointly devised regional strategies with the aim of positive regional development and closer co-operation and more effective division of work and networking with other players in the region. A

stronger the regional role for the polytechnic entails input into the development of adult education provision, R&D and other services.

Polytechnics shall intensify the internationalisation of their operations and take actively part in the development of the European and international higher education communities. Internationalisation is one means of responding to the knowledge requirements of working life. The target shall be that 8000 students annually study parts of their degrees abroad. The longer-term the aim in exchanges is reciprocity. The number of foreign degree students shall be increased and foreign-language instruction on offer shall be further developed.

All the polytechnics shall take part in the following networked projects concerning the polytechnic system as a whole:

1. Development of work practice
2. East and Southeast Asia network
3. Development of final projects and the national final project competition
4. Development of student guidance
5. Development of careers and recruitment services
6. Development of the Virtual Polytechnic

### **3 The mission**

Rovaniemi polytechnic promotes a good future for people and nature by promoting industries and sustainable welfare in Lapland. The means to this end are an active contribution to steering the development of the northern regions; professional education; R&D; and services.

The aim is to promote the vitality the Lapland economy, people's well-being and the basic services system in collaboration with others. The strategy is to develop knowledge, internal and external co-operation, internationalisation and a profile in keeping with the development strategies of the region. The priorities in education and R&D are based on regional strategies, the endogenous strengths of Lapland and people's knowledge and skills. The profile of the Polytechnic is based on cold climate know-how, ecological use of nature and the environment, and well-being. Other profilisation

areas common to all fields of education at Rovaniemi are information industries, northern conditions and entrepreneurship. The Polytechnic has reached international standards in knowledge of cold climate conditions, experiential tourism, measuring of people's functional capacity and motor skills, and the promotion of people's health in the special conditions up north.

### **4 Structural development**

The facilities arrangements shall be finalised as planned. The Polytechnic shall concentrate its operations into three campuses instead of the former eight units. The new premises will support the creation of three collaboration areas: production, services and well-being. The concentration of activities will further the emergence of R&D communities and cooperation. The organisation shall be developed in response to the new strategy and the new tasks.

Cooperation between higher education institution in Northern Finland shall be in keeping with regional development strategies, which determine the major objectives set for cooperation and division of work.

The regional higher education institution shall be developed into a permanent action model of regional influence for higher education institutions in Lapland, which will enable higher education knowledge needed in district and regional development to be diffused to local business enterprises, organisations and population. The action model will ensure permanent, needs-based regional cooperation and higher education collaboration in planning and resource allocation.

An English-language technology and communications degree programme shall be established to serve information industries.

## 5 Education supply 2004–2006

### a) Education for young people

Field	Entrants 2004	Entrants 2005	Entrants 2006
Humanities and education			
Culture			
Social sciences, business and administration	60	60	60
Natural sciences	30	30	30
Technology, communications and transport	205	205	205
Natural resources and the environment	50	50	50
Social services, health and sports	135	135	135
Tourism, catering and domestic services	110	110	110
<b>Total</b>	<b>590</b>	<b>590</b>	<b>590</b>

The Polytechnic can annually deviate from the intakes determined above in one or two groups within the scope of the overall number of entrant places. Any larger changes, where necessary, shall be agreed in the annual protocols.

The Polytechnic shall set the following targets for the agreement period:

1. 40 students annually shall start in production-related engineer education.
2. The number of students coming through the vocational tract shall correspond to 35% of enrolled students.

### b) Adult education supply

The maximum annual aggregate of degree students, students in professional specialisation and polytechnic postgraduate programmes shall be 592 in the agreement period, of whom 110 in the social and health field.

The Ministry of Education shall issue a separate decision concerning the intakes in the pilot polytechnic postgraduate programme.

In open polytechnic education, the aim shall be to increase the number of credit units completed by extramural students to 400 in 2004, 500 in 2005 and 520 in 2006.

## 6 Development aims

### a) Development of teaching

Teaching shall be developed as determined in *Strategy 2010*. The curriculum shall be revised within the ops 2004 project with a view to enhancing profilisation and cooperation and increasing flexibility in studies. Education-industry connections shall be improved and the guidance of final projects shall be improved. The methods and contents of language teaching shall be developed in response to the changing needs of internationalisation. The provision of virtual education and its methods shall be developed according to the needs of Lapland. Polytechnic pedagogy shall be further developed, the new student guidance plan shall be put into practice and feedback shall be utilised more effectively in operational development.

The Polytechnic shall make it possible for all its students to include studies completed in the Virtual Polytechnic in their degrees.

### b) Regional development, industry-industry cooperation and R&D

The mission of Rovaniemi Polytechnic is to develop Lapland by means of education, R&D and other services. The Polytechnic shall actively contribute to

the formulation of regional and district strategies and action programmes in collaboration with different players. Regional cooperation with other higher education institutions and districts shall be organised according to the action model of regional higher education institution.

R&D has been targeted to support the development of the Polytechnic's priorities. The aim is to create new knowledge and diffuse it to the surrounding society. Development projects have been and shall be planned as large programmes composed of several projects and implemented in collaboration with business and industry and different research institutes.

Examples of such entities are the development of tourism, cold and winter technology, the health and social network, the new media, and the forestry programmes. With a view to ensuring the impact of the projects, the Polytechnic shall carry out large joint ventures with business and industry.

#### **c) Internationalisation**

The aim of internationalisation shall be to support Lapland business and industry and develop competencies needed in international activities. To achieve this, the Polytechnic shall for its part direct internationalisation in the northern regions, educate people for international tasks, and take part in international R&D and services. Priority areas in internationalisation are cooperation within the University of the Arctic, in Europe and with selected partners in China and the USA. Development priorities are English-language teaching, internationalisation in the SME sector, and internationalisation at home.

The target shall be that by the end of the agreement period the number of those who have studied or trained abroad for three months or longer represents 30% of the entrants to education intended for young people. The number of foreign students and trainees coming to Finland for three months or more shall represent 15% of the number of entrants to education intended for young people.

#### **d) Staff development**

The aim of staff development shall be to ensure that the personnel are qualified and have the competencies determined in the strategy in the Polytechnics prioritisation areas, in applied research, and in R&D and service activities. Another aim shall be to improve the work capacity and well-being of the personnel as a whole. The main means to this end are to encourage the personnel to undertake R&D, as well as staff-development training and internal recruitment.

The target for the teachers' qualifications shall be that by the end of the agreement period (1) 90% of the principal lecturers have a licentiate or a doctorate, (2) 100% of the lecturers have a Master's degree, licentiate or doctorate.

### **7 Resources**

#### **a) Core funding and project funding**

Provided that the owner of the Polytechnic grants a sum corresponding to the unit cost multiplied by the number of students, the Ministry of Education shall grant project funding to the Polytechnic as follows:

	2004	Euros 2005	2006
Support programme, total	105,000	52,000	
- Staff-development training			
- Internationalisation			
- Library and information services			
- Development of information networks and virtual learning environments			
- Career and recruitment services			
R&D	152,000	152,000	152,000
Participation in content creation groups within the national Virtual Polytechnic	50,000	50,000	50,000
Support for work practice	58,000	58,000	-
Joint selection	16 800		
Inter-polytechnic projects			
- Intosola, Contracted innovation services in Lapland HEIs	30,000		
Regional development projects			
- Saami culture project	60,000		
- Lapland regional HEI	70,000		
<b>Project funding, total</b>	<b>541, 800</b>	<b>312,000</b>	<b>202,000</b>

The maximum government co-financing for the projects above:

- Support programme and work practice, 80% of the overall costs of the project
- Other projects, 60% the overall costs of the project.

#### **b) Subsidy for open polytechnic instruction**

The Ministry of Education shall grant 70,000 euros in 2004 for open university education.

#### **c) Performance-based financing**

The Ministry of Education shall reserve a total of 1,500,000 euros annually in the period 2004–2006 to be allocated to the polytechnics rated highest in evaluations according to the general performance criteria; a total of 1,500,000 to be allocated according to centre of excellence criteria; and 1 500,000 euros to be allocated according to the centre of excellence in regional impact criteria in 2006.

#### **d) External financing**

The Rovaniemi Polytechnic shall set a target to procure 25% of the operational economy income from sources other than the core funding and other Ministry of Education financing.

Another aim shall be to increase the share of external R&D financing to 18% of the operational economy income during the agreement period.

The Polytechnic's provisional plan for European Structural Fund projects is in Appendix 2.

#### **8 Monitoring and reporting**

The achievement of the objectives and targets set in this agreement shall be reviewed annually in connection with the performance negotiations.

The Polytechnic commits itself to developing the AMKOTA data system and the use of the student feedback system OPALA.

The development plan for education and research for 2003–2007 will be adopted after the signing of this agreement. If the plan necessitates changes in this agreement, the required changes shall be agreed in the first additional protocol.

If there are changes in the overall polytechnic intake, the annual number of adult students or the overall intake in teacher training, the adjustments shall be made in the annual protocols, where needed.

The condition for project funding is additional-

ly that Parliament grants the necessary funds. The Ministry of Education shall make a separate grant decision. Another condition for the validity of this agreement is that the Rovaniemi Municipal Federation of Education grants the resources agreed above.

The financing of the European Structural Fund programmes shall be agreed separately. The projects must be within the scope of the Polytechnic's licence and the decision made by the Ministry of Education on the validation of degree programmes.

Helsinki, the 17th of September 2003

Ministry of Education

Arvo Jäppinen  
Director General

Juha Arhinmäki  
Director

Rovaniemi Municipal Federation of Education

Heikki Kontiosalo  
Chair, Rovaniemi Municipal Council

Rovaniemi Polytechnic

Pentti Tieranta  
Rector

**Published in the publication series of the Ministry of Education in 2004**

- 1 Tulossuunnitelma 2004
- 2 Toiminta- ja taloussuunnitelma 2005–2008
- 3 An International Evaluation of the Finnish System of Arts Councils
- 4 Luovuskertomus – Ehdotus hallitusohjelmassa tarkoitetun luovuusstrategian tekemisen luonteesta, lähtökohdista ja toteuttamisen tavoista
- 5 Kirjastopalvelut kaikilla mausteilla – palvelutuotannon tila, tarpeet ja tulevaisuuden linjauksia
- 6 Koulutus ja tutkimus vuosina 2003–2008; Kehittämissuunnitelma
- 7 Utbildning och forskning 2003–2008: Utvecklingsplan
- 9 EU:n Nuoriso-ohjelman vaikuttavuus
- 10 Perustietoja ammattikorkeakouluista
- 11 Regional strategy for education and research up to 2013
- 12 Koulutuksen ja tutkimuksen tietoyhteiskunta-ohjelma 2004–2006
- 15 Opetusministeriön verkkopalvelu- ja verkkotoimintastrategia 2010
- 16 International Evaluation of the Academy of Finland
- 17 Koulutus, tutkimus ja työllisyys  
Valtion tiede- ja teknologianeuvostolle laadittu seurantaraportti
- 18 Yrittäjyyskasvatuksen linjaukset ja toimenpideohjelma
- 19 Valinnasta työelämään; Ammatillisen koulutuksen ja ammattikorkeakoulujen opiskelijavalinnan tarkastelua



OPETUSMINISTERIÖ

*Undervisningsministeriet*

MINISTRY OF EDUCATION

*Ministère de l'Éducation*

**Bookstore:**

Helsinki University Press

P.O. Box 4 (Vuorikatu 3)

FIN-00014 University of Helsinki

tel. +358 9 7010 2363

fax +358 9 7010 2374

books@yopaino.helsinki.fi

www.yliopistopaino.helsinki.fi

ISBN 952-442-757-5 (pbk.)

ISBN 952-442-758-3 (PDF)

ISSN 1458-8110