

# **WOMEN AND SCIENCE: Review of the situation in Finland**

## **1. The national background**

In this review we will focus on the equality policy and the promotion of women's research career carried out mainly by Government authorities (ministries and the main research funding organisations). Besides the statistical data of this review, we have also forwarded baseline statistics to the Eurogramme team.

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Finland is generally known as being one of the Nordic countries, which in some connections have been called the paradise of equality. Reasons for this depiction include the development of women's position towards equality with men since the end of the 19th century, and the development of the Nordic type of welfare state in the 20th century. This depiction is, of course, an exaggeration. But what is reality, is the so-called Nordic model of equality. The Nordic countries seem to have achieved an established basis required to promote gender and other equality: parliamentary democracy, equal constitutional rights for every citizen, and a well-functioning, mainly state-financed social security and service system, which also works in the modern market society.

### ***Women's role in Finnish society***

In 1906, Finnish women were the first in Europe to receive the right to vote and the first in the world to obtain the right to become electoral candidates. In the first parliamentary election in 1907, women's share of the elected candidates was 10 per cent; this share has ever since been very high internationally. The gender distribution at the top of the political hierarchy was changed in the presidential election in 2000, when Finland received the first woman president.

One of the major "woman policy" reforms of the 1990s was the quota principle that was introduced with the amendment of the Finnish Act on Equality between Women and Men in 1995. The gender quotas are applied in all government committees, advisory boards, working groups and other corresponding bodies for preparation, planning and decision-making as well as municipal bodies excluding municipal councils elected in elections. The gender quotas (40/60) have increased the women's share in committees (43%); almost 70 per cent of the committees are composed in accordance with the quota provision.

Finnish women have long participated actively in the working life. Today, the labour force participation rates of both women and men are almost equally high. Starting from the 1950s, women's labour force participation rate grew slowly right up to the end of the 1980s. With men, the rate was in slight decline. As the period of economic boom turned to a recession in the early 1990s, the labour force participation rates of both women and men fell by approximately five percentage points. In 2000, the rate for women was 64 per cent and for men 69 per cent in the 15 to 64 age group.

Finland is an exception among the EU countries in that long-term unemployment is not particularly young people and women's problem. By international comparison, relatively little part-time work is

done in Finland. Only 11 per cent of all employed persons were employed part-time in Finland, whereas the corresponding proportion for the whole EU was 17 per cent.

In its equal opportunities programme, the Finnish government has committed itself to promoting equality by mainstreaming. The aim is to create such political and administrative ways of action where the principles to promote equality also lead to actions in practice. The Nordic model of equality is widely accepted in Finland; this is seen in, for example, the results of the equality barometer by Statistics Finland and the Finnish Council for Equality. The first equality barometer was made in 1998 as part of the Government's equal opportunities programme. This barometer measures the Finns' attitudes towards and experiences of equality in human relations, in the working life, and in society at large. No corresponding empirical study has been conducted so far elsewhere in the world. The results received from this equality barometer also show an interesting Finnish paradox: it is a general view that the Finns have achieved equality. However, there is still much hidden resistance coexisting side by side with the general acceptance of the Finnish equality policy and the fact that equality is taken for granted.

### ***The Finnish education and research system***

The long-term objectives of Finnish education policy have traditionally been to raise the general standard of education and to promote educational equality. Efforts have been made to provide all population groups and regions of the country with equal educational opportunities. The comprehensive school system, the vocational education reform, the regionalisation of universities and the new polytechnics have all been consistent with this approach. Increasing flexibility and the opportunities for individual choice as well as internationalisation are considered important.

As regards higher education there are twenty universities in Finland, ten of which are multifaculty institutions and ten specialist institutions. All universities engage in both education and research and have the right to award doctorates. The autonomy of universities has been strengthened and a management by results process between the Ministry of Education and universities has been developed. The aim of the polytechnic reform has been to raise the standard of higher vocational studies and establishing a distinct non-university sector of higher education. In higher education the goal to provide student places for 60 - 65 per cent of the age group by the year 2000 has been achieved.

The aims of developing the research system are to improve the quality and efficiency of its work and its scientific and social relevance. Multiple network co-operation and quality-based competition in the targeting of research funding has been increased as well as basic funding to research organisations. Co-operation has been developed between the research-funding organisations, universities and the business sector. There is a consensus on the strategy for development between the different stakeholders in Finland; the ministries, universities, the Academy of Finland, the National Technology Agency and industry. In recent years Government measures have brought a substantial increase in public funding for research at the same time as the contribution of the private sector has grown even faster. Finland is one of the most research-intensive countries; in 2000 the country's R & D expenditure accounted for 3.30 per cent of GDP.

### ***The policy framework for women and science***

International experiences show that the promotion of women's research careers and gender equality are not self-evident but require all hard work. From the early 1980s onwards, both the Ministry of Education and the Academy of Finland have paid increasing attention to the advancement of

women's careers in research, women's studies and equality issues in general in the Finnish science community.

Important achievements towards better equality include:

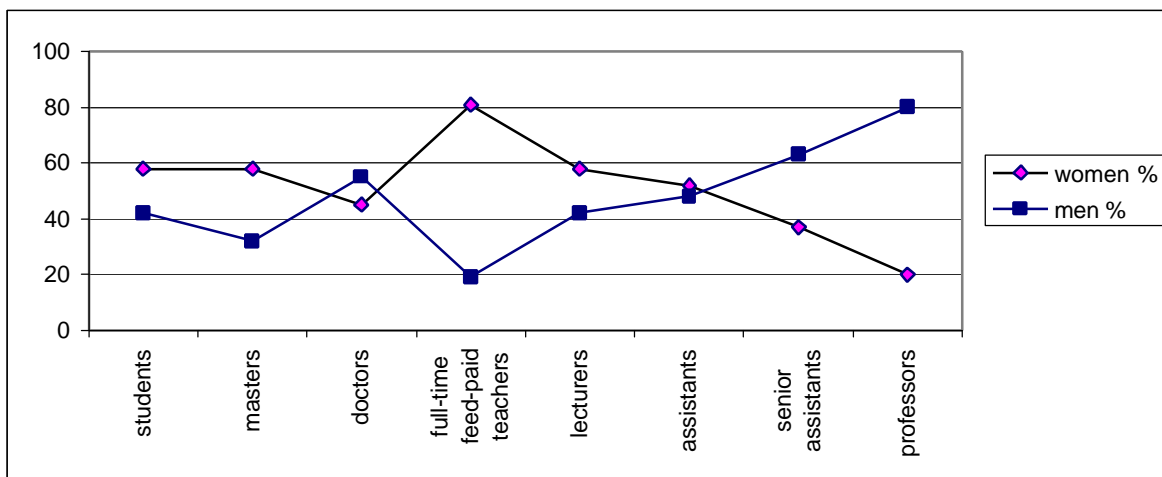
- 1987 Act on Equality between Women and Men
- 1990 Guidelines issued by the Ombudsman for Equality for universities
- 1995 Amendment to the Act on Equality regarding the minimum percentage (40%) of both women and men on government committees, working groups, scientific committees and other corresponding organs
- 1995 The five-year professorships in women's studies (eight posts) of the Ministry of Education
- 1997 The working group of the Academy of Finland to advance women's careers in research
- 1998 The first Minna Canth Academy Professorship (women's studies and equality research) of the Academy of Finland
- 1999 The working group to prepare an equal opportunities programme for the Academy of Finland ⇒ Proposal for gender equality plan
- 2000 The follow-up group of the Academy of Finland monitoring the advancement of women's careers in research ⇒ Memorandum
- 2001-2003 Equal Opportunities Plan for the Academy of Finland

“Women of Learning”, an exhibition arranged in Helsinki in May 2000, introduced for the first time in Finland on a large scale the scientific work and the research career opportunities of Finnish women researchers. It was arranged jointly by the Helsinki University Library and the Christina Institute. Women in Finland, as elsewhere in the world, have for a long time been actively involved in academic research. However, their work has very often been shadowed by the achievements of their male colleagues. The exhibition showed the gradual advancement of Finnish women in research and presented both well-known and unknown pioneers of learned women in various scientific fields from the 19<sup>th</sup> century to the present day. The exhibition was not only a one-site event; the online exhibition is available on web pages (Finnish, Swedish, and English) at <http://www.helsinki.fi/akka-info/tiedenaiset>.

## 2. Women and science in Finland: some statistics

In all countries, the younger generations of women are higher educated than men, but behind them in the level of jobs, top positions and salaries. According to a European survey the highest frequencies of academic women are in Finland, Sweden and Denmark. Also very similarly, in all countries female students tend to choose medical and humanistic studies, while natural sciences, mathematics and information technology fields are dominated by male students. (Key Data on Education in the European Union 1997)

Figure 1. Academic gender pliers in Finland 2000



Source: Ministry of Education 2001

The figure of gender scissors follows the same type of pattern in all EU Member States – only the blades might be more or less open in different countries. In Finland the blades carry on closing, and the scissors have changed into a piers/forceps/tongs. (See Figure 1 for closing diagram.)

In 2000, a total number of 6,714 women received their higher-level university degree (Masters degree) in Finland; this is 58 per cent of the degrees attained. Five most popular disciplines for women were health care sciences (92%), psychology (88%), veterinary medicine (84%), education sciences (82%) and fine arts (80%). The lowest percentage of women among discipline areas is in the technical sciences (20%). However, a slight increase as compared to previous years is now seen.

As to doctoral degrees, a steep increase in doctorates gained by women is now seen even in the technical and engineering studies, where 26 women (16%) received a doctoral degree. In 2000, women in Finland received 45 per cent of the total of 1,156 doctoral degrees.

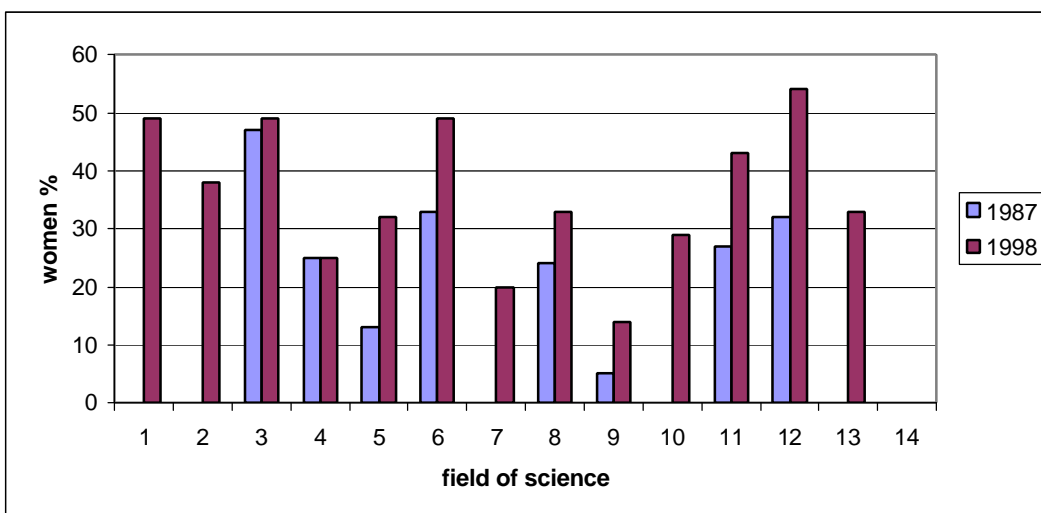
The proportion of female professors in Finnish universities is the highest in the European Union. In 1998 the associate professorships were combined into one full professorship category; the previous figure of 13 per cent jumped up to 18.4 per cent for 1998. The proportion has slightly increased and was 20 per cent in 2000. The fact that the invitation procedure for appointing professors had become quite popular in the late 1990s seemed at first to decrease the possibilities for women to become appointed professors. However, according to the newest data collected by the Ministry of Education this development has significantly changed during the last few years and taken a more positive direction as far as women are concerned. Still in the fields of engineering and technology the invitation procedure is quite often used and at the same time potential female candidates to be invited are rare. According to the figures only a few women have been appointed professors in the

universities of technology. In the future it is important to follow the situation closely and ask the universities to present regularly information on their appointed professors.

What are the critical points in this figure from the viewpoint of promoting women's career in research? The proportion of female doctors has grown significantly, but their distribution among various disciplines is still very uneven. Second, it is generally known that women are well represented on the initial stages of the academic career, but after gaining the doctorate women clearly more seldom than men succeed in advancing into more demanding tasks in the science hierarchy.

What is positive here is the great potential of women for researcher training shown in the figure. For instance, a study of the decisions regarding appointments to the Academy's research posts shows a very rapid development towards a more even gender distribution. All research councils have appointed more women to research posts than the share of women among applicants for these research posts. At year-end 2000 women occupied over one-third or 37 per cent of all Academy research posts. In natural sciences and engineering the proportion of women remains no more than one-fifth.

Figure 2. Women's share of doctorates, by field of science, in 1987 and 1998

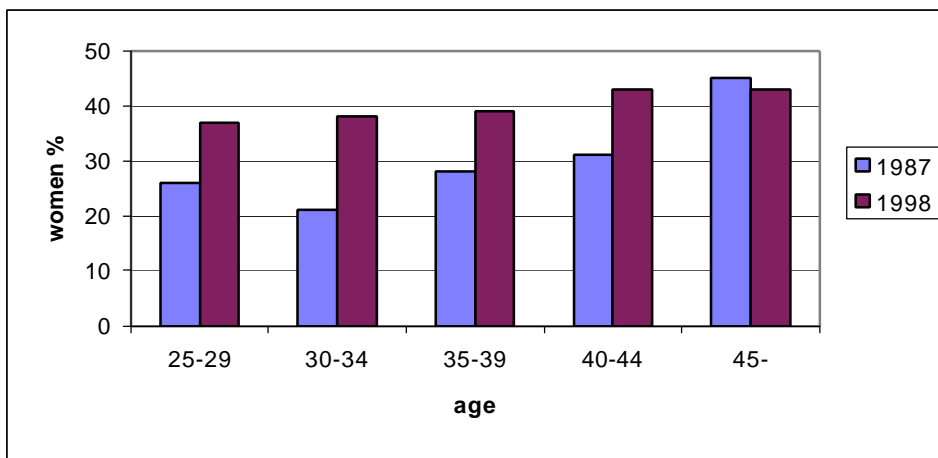


- (1) Doctor of Education
- (2) Doctor of Arts
- (3) Doctor of Philosophy (humanities)
- (4) Doctor of Theology
- (5) Doctor of Business Administration
- (6) Doctor of Social Sciences
- (7) Doctor of Laws
- (8) Doctor of Philosophy (science)
- (9) Doctor of Technology
- (10) Doctor of Philosophy (engineering)
- (11) Doctor of Agriculture and Forestry
- (12) Doctor of Health Care (and related fields)
- (13) Doctoral studies in service industries
- (14) Doctoral studies in other social welfare and health care sciences (no degrees in 1987 and 1998)

Source: Statistics Finland/Academy of Finland 2000.

Postgraduate studies are still clearly differentiated according to gender and discipline, and the traditional choices made regarding discipline and education have remained. In 1987, in all fields of science less than half of the doctorates were obtained by women. In 1998, women accounted for more than half (54%) of the doctorates attained in social welfare and health care studies. Nearly half (49%) of the doctorates in the fields of education, the humanities and social sciences were gained by women. Less than third of those receiving a doctorate in theology, business administration, law and engineering in 1998 were women. A percentage of women receiving doctorates has clearly increased in the fields of business administration, natural sciences, engineering, agricultural and forest sciences, and social welfare and health care.

Figure 3. Women as a percentage of the receivers of doctoral degrees, by age group in 1987 and 1998



Source: Statistics Finland/Academy of Finland 2000.

Figure 3 shows that there is no significant difference regarding the age at which men and women take their doctorate. The measures taken to intensify researcher training have generally assumed to lower the doctorate age. It can already be seen that the number of those gaining their doctorate under the age of 30 has clearly grown. At the same time, the number of those, both men and women, taking their doctorate at the age of over 45 has also increased.

Of both men and women taking their doctorate at the age of under 30, some 70 per cent had no children. Of 30-40-year old women with doctorate 40 per cent and 35 per cent of men of the same age had no children. In the age group 40-60, about fourth of women doctors and tenth of men doctors had no children. Of women over 60 years of age 40 per cent and 10 per cent of men had no children.

Some even though somewhat contradictory data are available on the effects of the integration of motherhood and research. The majority of the Finnish women taking doctorates are mothers; international comparison shows that this is unusual. Available statistical data reveal that motherhood does not significantly lengthen the time of graduation. A recent study by Statistics Finland shows that academic education seems to decrease the number of children by women, but increase their number by men. Men with researcher training have the biggest number of children whereas women with researcher training have the smallest number of children. However, only less than third of women with doctorates had no children in 1998.

### *Research in the private sector*

In the 1990s, R&D have more and more typically been seen as a major resource that provides basis for the development of the enterprise sector. Competent staff and human resources are key competitive factors in business life. Funding invested in R&D has increased more than 2.5-fold from 1991 to 1998. The number of staff has at the same time increased 1.3 -fold.

For women's career in research, the starting point in 1991 was unfavourable. In business sector, women were strongest represented in assisting tasks requiring little education. In these, women's proportion was some 40 per cent as late as 1993. After that year, women's share in this group dropped and was less than 30 per cent in 1998. The share of women with higher education or lower degrees has remained almost the same, i.e. 20 per cent. Development has been more favourable for women with researcher training and particularly for women with doctorate. The relative share of women has grown from 15 per cent in 1991 to some 20 per cent of doctoral labour force; the absolute number of women with doctorates has almost tripled.

Table 1. Corporate R&D staff by gender in 1991-1998

	Staff	1991	%	1993	%	1995	%	1997	%	1998	%
Total	Total	24835	100,0	19678	100,0	24243	100,0	29139	100,0	32430	100,0
	Women	5616	22,6	4395	22,3	5394	22,2	6073	20,8	6808	21,0
	Men	19219	77,4	15283	77,7	18849	77,8	23066	79,2	25622	79,0
Doctors	Total	452	100,0	422	100,0	487	100,0	626	100,0	733	100,0
	Women	64	14,2	70	16,6	88	18,1	124	19,8	160	21,8
	Men	388	85,8	352	83,4	399	81,9	502	80,2	573	78,2
Licentiates	Total	418	100,0	473	100,0	537	100,0	638	100,0	709	100,0
	Women	62	14,8	62	13,1	79	14,7	102	16,0	127	17,9
	Men	356	85,2	411	86,9	458	85,3	536	84,0	582	82,1
Other university degree	Total	6499	100,0	5990	100,0	7895	100,0	9796	100,0	10904	100,0
	Women	1322	20,3	1223	20,4	1635	20,7	1959	20,0	2254	20,7
	Men	5177	79,7	4767	79,6	6260	79,3	7837	80,0	8650	79,3
Other education	Total	15502	100,0	11522	100,0	13541	100,0	16305	100,0	17618	100,0
	Women	3416	22,0	2518	21,9	2999	22,1	3284	20,1	3574	20,3
	Men	12086	78,0	9004	78,1	10542	77,9	13021	79,9	14044	79,7
No vocational education	Total	1964	100,0	1271	100,0	1783	100,0	1774	100,0	2466	100,0
	Women	752	38,3	522	41,1	593	33,3	604	34,0	693	28,1
	Men	1212	61,7	749	58,9	1190	66,7	1170	66,0	1773	71,9

Source: Statistics Finland 1999.

It shall be noted here that most of the public funding allocated to technological research is channelled through the National Technology Agency (Tekes); this is approximately third of all public R&D funding. So far no data are available on the allocation and use of Tekes' funding to research work headed or carried out by women. In the Finnish research system, this is a significant, yet uncharted area in the public funding affecting women's research career.

### **3. Measures to promote the role of women in science**

The following describes the measures taken by the Ministry of Education and the Academy of Finland.

#### ***A. Graduate schools***

A new system for postgraduate training was launched in 1995. The Finnish graduate schools, which cover about 30 per cent of postgraduate training, have also assisted women in improving their opportunities for more efficient doctoral training. The system now comprises a total of 96 graduate schools and 1,280 doctoral student positions financed for a four years' period by the Ministry of Education. Additional funding comes from the Academy of Finland, universities, the National Technology Agency or from private funding sources. The total number of doctoral students in the graduate schools is some 4,000, almost half of whom are women. According to a recent survey, no major differences were observed between male and female doctoral students in their satisfaction concerning research equipment, quality of training courses, possibilities to take international training or participate in meetings abroad.

The graduate schools have clearly improved the quality of teaching and training and made the doctoral studies more efficient and better organised. Also the age of doctoral students at dissertation has slowly decreased. In 1999, the median age to receive a doctorate was 36 years, while the median for doctors from graduate schools was 32 years. Women were usually nearly two years older than men were. The reason for this was not that it takes longer for women to prepare a doctorate, but that women are older when joining the graduate schools. However, the number of children did not have a delaying effect in the time period necessary for finishing the doctoral studies.

#### ***B. Gender studies***

In the early 1980s, researchers and students in Finnish universities established special women researcher associations to promote women's studies and women's position in universities and in science. Most of these associations were discontinued in the 1990s, when academic teaching and research in women's studies had gradually become an integral part of everyday university life. Institutes for women's studies have been established in several universities. The Association for Women's Studies in Finland started in 1988, and it also began to publish a scientific journal entitled *Naistutkimus – Kvinnoforskning* (Women's Studies) in the same year. The first university study modules in women's studies were also introduced at that time; in the latter half of the 1990s several associations for women's studies were established in universities.

The Government action programme for gender equality for the years 1980 - 1985 set the objective for the promotion of academic gender studies. Today there are special units for gender studies in four universities; the unit at Åbo Akademi University is the oldest and was officially established in 1986, followed by the University of Tampere, the University of Helsinki (the Christina Institute) and the University of Turku. Altogether nine of Finnish universities have teaching and research positions in gender studies, of these the Christina Institute is the largest with its five permanent positions, two of which are professor's positions. The Ministry of Education has established six professor's chairs to five universities and several new projects have been accepted in the agreement on target outcome negotiations with universities. A new professorship for gender equality studies, the Minna Canth Academy Professor was recently established and the first appointment made to this professorship. Plans have been made for additional two professorships designed for promotion of equality in academic research and teaching.



The Ministry of Education has asked the Academy of Finland to prepare an evaluation of gender and equality studies during the year 2001. The term of the five-year professorships in women's studies and gender research, funded by the Ministry of Education and established during 1995 – 1998, will expire soon; furthermore, research environments and EU research policy have undergone major changes. This is the background for the wish to explore further development needs and identify new priority areas within women's studies and gender research. These fields were also discussed during the annual negotiations between universities and the Ministry of Education in spring 2001. After the end of the five-year programme the universities have committed to allocate funds also in the future to support research in these fields.

The aim of the evaluation is to study the position and standard of Finnish women's studies and gender research in international comparison, the strengths and weaknesses of research in the field, the functioning of teaching arrangements and allocation of resources in comparison to international development and the societal relevance of women's studies and gender research. The aim of the evaluation is also to explore the needs for further development of gender studies and propose measures to be taken.

### ***C. Eliminating obstacles and promoting research careers – A working group of the Academy of Finland***

A working group appointed by the Academy of Finland investigated and assessed in 1997 the need for measures to promote research careers for women and proposed ways of eliminating the obstacles encountered by women in academia; efforts have been made to take these proposals into account in the Academy's science policy strategies. The measures include the improvement of the evaluation procedures of the Academy, the focussing of the Academy's research funding and the improvement of the position of young researchers and researchers with family. This work still goes on.

The recent reports by the working group preparing the Academy's equal opportunities programme and by the follow-up group monitoring women's careers in research form a coherent whole with the aim to describe the status of women researchers in the Finnish science community and in Academy research funding as well as to make proposals to improve gender equality and to promote women's careers in research. The aim is on the other hand to strengthen women's opportunities to advance on a research career and on the other hand to increase the number of women aspiring to embark on a career in research. The working group preparing the equal opportunities programme focussed its work on making proposals for further measures, whereas the follow-up group monitoring women's career in research concentrated on producing statistical data and background material. In addition to basic strategies, the main emphasis of both working groups was on practical measures and on continuous follow-up of the state of equality.

The following issues in particular are being discussed to develop monitoring and the compiling of statistics:

- Research statistics compiled by Statistics Finland should be developed to make it easier to compare the career advancement of women and men in various fields of research
- The public statistics should present more detailed data on the development of the research career structure by gender
- The compilation of general statistics by gender and the information management of various organisations should be further developed in terms of efficiency and resources

- The annual reports and other documents of universities and research institutes should provide sufficiently detailed data on gender-specific professional assignments to further develop the follow-up of the career structure.

One of the Academy's most urgent tasks in the promotion of equality will be to develop procedures that will facilitate women's recruitment into researcher training and research in the natural sciences and engineering. Although the Academy has efficient instruments to support research, it is important to continuously seek for new tools and options in the rapidly changing operational environment.

#### ***D. A new tool: equal opportunities plan***

In order to better promote gender equality in the Finnish science community, the Academy Board recently accepted an equal opportunities plan for the Academy. The aim is to promote equality by means of clearly defined actions, by dissemination of information and by systematically monitoring how this plan is implemented. The Academy's equal opportunities plan is for the years 2001 – 2003, and it concerns researchers working by Academy funding. The point of departure is the best for science, and the aim is to support the best possible, high-level research.

The Academy's equal opportunities plan has been described as being very advanced. It comprises 36 proposals for further actions, of which the most important are:

\* The minority gender shall have at least 40 per cent representation in research posts, experts tasks and working groups, if not justified otherwise of some special reasons. If the applicants for a research post are scientifically equally qualified, priority in the appointment shall be given to the applicant whose gender is under-represented in this post category.

\* The Academy will investigate as how to nominate more women than previously to Academy professorships in the natural sciences and engineering.

\* Researchers applying for research funding shall in their applications specify the gender distribution of the research project concerned. The leaders of the projects funded by the Academy must also report on gender distribution of the researchers hired by the project, both in the final reports and when applying for further funding. This will also provide good material for statistics.

\* Extension of time is given to appointments to Academy research posts and research projects on the basis of maternity, paternity and paternal leaves. The Academy also encourages male researchers to take paternity and paternal leaves guaranteed for them by Finnish legislation.

\* Two actions are directly linked with money: Unique even in the European perspective is the paragraph according to which researchers in researcher training or working abroad may be granted 20 per cent increase in their grants if they have underage dependants. Another is the so-called incentive money of two to six months intended particularly to young researchers and women researchers. This money can also be granted to researchers returning to work after their paternal leave.

\* The plan pays special attention to dissemination of information; according to feedback received, both researchers and the leaders of research projects are poorly aware of, for example, the procedures applied in connection with maternity, paternity and parental leaves.

This equal opportunities plan is important as it provides a concrete tool both for the Academy's decision-makers (research councils, subcommittees) and for those preparing matters for decision (experts, panels, working groups, civil servants). The equal opportunities plan indeed supports the advancement of women's career in research. Academy funding and Academy research posts are important for the career prospects of university researchers. The equal distribution of Academy research funding improves the opportunities of women to equally compete for university posts and research tasks.

Though this new equal opportunities plan concerns only researchers funded by the Academy, it also proposes to lead the way and provides a very good example for the scientific community both in Finland and abroad.

Several factors outside the Academy also affect gender equality and researchers working with Academy funding. The plan therefore urges the public administration to promote gender equality in the preparation of all matters and in decision-making. Special attention should be paid to developing family policy legislation and to increasing the responsibility of the sites of research, i.e. universities and research institutes to further promote gender equality.

#### **4. Monitoring and evaluation**

For evaluation and the decision-making process it is important that universities regularly report to the Ministry of Education on the attainment of objectives and performance. For this purpose the KOTA database has been established; universities enter relevant statistics into this database maintained by the Ministry. The database contains data describing university performance since 1981 by institution and by field of study. More detailed national data are available at Statistics Finland and more detailed institution-specific data in the information system of each university. The technical side has been developed and the content expanded in recent years. Gender is well taken into account in the reporting. The user-interface on the World Wide Web (<http://www.csc.fi/kota/kota.html>) was launched in 1997.

Indicators need to be, however, constantly developed. Consequently, the Academy of Finland is starting to work to further develop the equality indicators describing Academy research. The first step is to chart and harmonise national statistics and to give directions for the compilation of statistics. The second step is to upgrade the compilation of statistics to a European level; Finland has an excellent facility for this, as Finland is a pioneer in the field of equality indicators (e.g. projects Decision-making; Participation in the working life).

From the viewpoint of equality, the development of corporate R&D will have a growing significance also for research career, and therefore, accurate data is needed on the field of study of researchers working in the enterprise sector.

The data of the Ministry of Education and Statistics Finland are based on the registers of universities, companies and institutions or on separate data compilation. It is relatively easy to find gender-specific data for follow-up analyses as far as the organisations' own data systems can be used. Data on gender is almost without exception entered in the personnel data systems which usually also contain data on work duties, education, salary, and the length of the person's work career. In many cases production of the statistical follow-up data would be easier and its quality much improved, if these systems could be used more effectively and the data content developed in accordance with the same, consistent principles.

## **5. Future perspectives**

Attention should not only be focused on the measures taken by the Academy. From the equality perspective, the representation of women in the Academy and its four research councils is also a question of utmost importance. The members of the research councils and the Academy Board were nominated by the Government for a three-year period starting January 1, 2001. Nominations were widely asked from the research community. Among the proposals for candidates submitted to the Ministry of Education approximately 33 per cent were women. However, in preparing the final decision a balance between the sexes was considered very important among the selection criteria and as a result now approximately 48 per cent of the new research councils members are women.

In December 1999, the Government adopted a Development Plan for Education and University Research for the years 1999-2004. The fundamental policy line in the Government programme highlights know-how, a capacity of utilising the know-how and creating new innovations. Equal opportunity for education and training is the right of everyone in accordance with the principles of lifelong learning regardless of their gender, place of residence, age, language, economic standing, state of health, disability or origin.

The plan states that researcher training will be promoted. The graduate schools are seen as a central, but not the only track, to a doctorate. Researcher training will take account of economic, cultural and social needs. Conditions will especially be improved for women researchers to combine work and family life. The development programme specifically states that obstacles to women's research careers will be removed.

The road towards equality is long and there are many hurdles on the way. It needs the combined actions of different partners in society to promote the same aims and work for the gradual improvement of women in science. The way to mainstreaming equality in science may have been smoothed but constant efforts and continuous attention are still demanded in a rapidly changing overall context.

**Helsinki Group on women and science  
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**Finnish national report by  
Hannele Kurki, Academy of Finland  
Heidi Kuusi, Ministry of Education  
Helena Vänskä, Academy of Finland**