

Publications of the Ministry of Social Affairs and Health 2002:17

Social and health policy-oriented research

and development activities in Finland

**MINISTRY OF SOCIAL AFFAIRS AND HEALTH
Helsinki 2002**

Summary

Social and health policy-oriented research and development activities in Finland. Helsinki 2002. 79 p. (Publications of the Ministry of Social Affairs and Health, ISSN 1236-2050; 2002:17.) ISBN 952-00-1186-2

The aim of the report is to shortly introduce to the reader the organisational structure and the main activities of social and health policy-oriented research and development activities in the field of social and health affairs. This report mainly focuses on the administrative field under the supervision of the Ministry of Social Affairs and Health (hereafter the MSAH). In addition, the MSAH supervises certain research and development activities, which are not often considered to be an integral part of social and health sector; most importantly, such activities include radiation and nuclear safety issues. Due to the administrative framework, however, such activities have also been included into this review. Socio-politically relevant research and development activities of organisations *outside* the administrative or supervisory structures of the MSAH will also be reviewed as the field of social and health policy-oriented research and development activities is broader than the administrative field, but nevertheless contributes for policy- and decision-making in direct ways.

This report begins with the review of strategic documents and decision-making structures, and the overview of institutional and organisational structures. Then the research and development activities of the MSAH will be introduced, following then unit-by-unit introduction of relevant research and development institutions. In all cases, administrative position, staff and major research questions will be reviewed. In addition, as explained above, this study has applied a broader approach to research and development activities by including some material on those research and development organisations who regularly supply research and development services for the MSAH and sectoral research organisations under its supervision.

Key words: Research, research policy, research institutions, strategy, social and health policy

PREFACE

The objective of this publication is to shortly introduce the current research and development activities in the administrative sector and in the field of social and health policy. Although there is a significant overlap between the administrative sector and social and health policy, they are not identical concepts. The previous edition of this study was published in 1994. This report describes changes that have occurred since the 1994 report was published, with the main emphasis in the situation at the turn of the century.

The Research and Development Unit of Finance and Planning Department has collected material for this report. In writing this publication it has greatly benefited from the friendly and efficient co-operation of research and development organisations involved, which have provided necessary information on their organisations, activities and budgets. Numerical information in tables is, when possible, available both in euros and Finnish marks. One euro (€) equals to 5,94573 Finnish marks. Further information is available in www-pages, which have been listed in endnotes.

Helsinki, June 2002

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1 INTRODUCTION

The aim of this report is to shortly introduce to the reader the organisational structure and the main activities of policy-oriented research and development activities in the field of social and health affairs. This report mainly focuses on the administrative field under the supervision of the Ministry of Social Affairs and Health (hereafter the MSAH). In addition, the MSAH supervises certain research and development activities, which are not often considered to be an integral part of social and health sector; most importantly, such activities include radiation and nuclear safety issues. Due to the administrative framework, however, such activities have also been included into this review.

Socio-politically relevant research and development activities of organisations outside the administrative or supervisory structures of the MSAH will also be reviewed as the field of social and health policy-oriented research and development activities is broader than the administrative field, but nevertheless contributes for policy- and decision-making in direct ways. This fact is reflected, among other things, in the structure of *the Advisory Committee on Social Security Research and Development* (to be introduced later) and its secretariat, where the large number of stakeholders have their permanent representations.

This report begins with the review of strategic documents and decision-making structures, and the overview of institutional and organisational structures. Then the research and development activities of the MSAH will be introduced, following then by the unit-by-unit introduction of relevant research and development institutions. In all cases, administrative position, staff and major research questions will be reviewed. Previous version of this publication was published in 1994;¹ therefore, in several cases individual chapters provide some retrospective information based on that study. This makes it possible to some extent assess the gradual evolution of strategies, organisational structures and research objectives, which evidently are linked to each other.²

In addition, as explained above, this study has applied a broader approach to research and development activities by including some material on those research and development organisations who regularly supply research and development services for the MSAH and sectoral research organisations under its supervision. These organisations include Government Institute for Economic Research, Economic research institutes, universities' research centres and departments for social and health policies.

Objectives of social and health policy-oriented research

The main objective of social and health policy-oriented research is to extend information base available for all persons interested in the institutions of social policy, such as redistributive mechanisms and different means of regulation (known also as legal welfare), and the welfare of citizens. The concepts of social and health policy refer to the public institutions aimed at protecting citizens against the social risks of various kinds, including those related to income, employment, housing, education, or health (this list is not an exhaustive one). The concept of welfare, in turn, covers similar dimensions of households' resource packages regardless whether they are directly or indirectly related to the institutions of social policy.

Most fundamentally, the research and development activities are designed to provide information for decision-makers at national, regional and local levels. The

increasing proportion of research and development projects commissioned by the MSAH or produced by research institutions under its direct and indirect supervision are clearly social and health policy-oriented. In addition, research and development activities are linked to international and comparative projects often co-funded by the European Commission with specific interests.

As we will see, the public authorities, interest groups and academic institutions in Finland have invested quite extensively in policy oriented research and development activities. This can, broadly speaking, be legitimised by three general notions. First, the institutional design of social policy has the major impact of citizens' incomes, employment, education, health, housing, and more broadly, to the allocation of resources, and economic growth. There clearly is a demand for research aimed at improving the performance of social policy in relation to these issues. Topics to be investigated include, among others, incentives at both micro and macro levels, as well as levels of household and organisation, and the relationship between economic growth and social policy.

From this point of view, policy-oriented research is increasingly assessed as an investment aimed at improving the efficient (or cost-effective) use of public resources. There are numerous ways to skin a cat, but some clearly are more cost-effective than others. Social and health policy-oriented research as an investment has clearly gained ground during the latter half of the 1990s. However, further effort must still be made in order to bridge the gap between the policy-oriented research and decision-making.

Secondly, there are still significant inequalities in well being between different groups and regions that can better be explained through socio-economic variables rather than individual tastes or choices. Of course, it is the matter of disagreement and intense scrutiny to what extent such inequalities can be justified by other political and economic objectives, including an appropriate incentive system and rewarding the effort. However, such structural inequalities should not prevent individuals in having equal opportunities. Furthermore, according to opinion polls Finns often consider the outcome of market-based distribution of rewards and resources unequal. It also is broadly understood that the previous generations' inequality of resource outcome causes inequalities in opportunities among the next generation.

Finally, there is a need to distribute information among the persons living in Finland (regardless their citizenship) and enrich their information base regarding the structures and designs of social policy and welfare in historical and comparative perspectives. The fact that the focus of research is in decision-making and the related allocation of resources does not indicate that broader demands for information would be fully neglected. Quite the contrary, much systematic effort aimed at improving the diffusion of research finding and the results of development have been made, including monthly newspapers specialised in such issues, redistribution of research publications through a comprehensive library system, and easy access to information via web-pages.³

Opinion polls are regularly conducted in Finland on social policy opinions. Regardless of "framing" problems, that is the use of different wordings that have impacted on results, the polls indicate broad-based support for universal social policy and the related model of financing social policy⁴. Furthermore, within the items of the public sector, social policy has a high priority (often together with public order and safety). Consequently, social policy often crowds out other categories of expenditure under the tight budget constraint. However, with a partial exception in pensions, only limited information is available on the knowledge level of individual citizens regarding

social policy and welfare. Fragmented information indicates that regardless that access to information on social policy and well being is guaranteed via libraries and web-sites, *knowledge* over the institutions of social policy and the welfare of citizens is unequally distributed in a society.⁵ This clearly is an area, which requires additional investments in the future.

Administrative organisation of the social and health policy-oriented research

The Science and Technology Policy Council of Finland is the highest agent responsible for research and development policy in Finland.⁶ The Council, which is chaired by the Prime Minister, designs major guidelines for all research and development policies, including those for ministries and sectoral research and development organisations. The broad conceptual framework that guides research and development policies is a shift from industrial society to information society. In 1996 the Council wrote the following:

The most important social policy task in the 1990s is to develop the Finnish information society. It, too, must be based on comprehensive knowledge and know-how. Alongside technological progress and its efficient utilisation, this requires systematic development of information content and citizens' ability to put information technology to apply IT for their own purposes.⁷

The Council also indicates that in order to develop an information society, one should invest in investigating both technological and institutional changes, as well as interplay between such changes.

Regarding broad general guidelines for research and development policies in social and health policy-oriented research processes, the Council has agreed on following three major objectives⁸:

- ◆ The commitment of ministries' management for implementing knowledge-incentive administrative culture through their organisations.
- ◆ The construction of co-operative networks within research and development community.
- ◆ The development of horizontal co-operation beyond administrative boundaries.

The recent evaluation of the Council suggests that ministries have been able to reach these objectives to a varying extent.

The Ministry of Social Affairs and Health bears the general responsibility for research and development. The body co-ordinating research and development activity in conjunction with the Ministry of Social Affairs and Health is *the Advisory Committee on Social Security Research and Development*.⁹ Initially, the guiding principles in the Committee's work were to provide support for the production of services by the local authorities and to foster co-operation between the State administration and the municipal sector. Today, the Committee puts increasing emphasis on the co-ordination of all research and development activities in this particular administrative sector.

The Committee's brief is to promote research and development and to develop social security by introducing and debating over issues that have general relevance, are far-reaching or are otherwise important as questions of principle. In addition, according

to a recent decision of the Committee, more systematic attention will be devoted to the mechanisms that bridge research and development activities and policy-oriented decision-making together. According to the Committee, in addition of the extensive evaluation of research and development activities that covers all elements of research and development funding, where this element is at present, more focused case studies are required in this field. Furthermore, more emphasis has been given for international and European-wide co-operation.

According to its decree, the tasks of the Committee are as follows¹⁰:

- ◆ To promote and reconcile social policy related research and development activities, and to annually publish administrative sector's target programme for national and international research and development activities;
- ◆ To develop the evaluation of research and development activities and annually evaluate the effectiveness of sector's research and development activities.
- ◆ To develop the communication and the diffusion of information within the administrative sector.
- ◆ To implement all other tasks ordered by the Ministry of Social Affairs and Health.

According to the decree, the members of the Committee include the Ministry of Social Affairs and Health, the Ministry of Finance, major research and development institutions, Slot Machine Association, and the Association of Finnish Local and Regional Authorities (Kuntaliitto). The Committee is a body for collaboration and negotiations between the authorities in central administration and municipal central organisations. It has published two target programmes of research policy, for the years 1997-1999¹¹ and for the years 1999-2001,¹² and will publish another one in the future, if such a document is considered necessary to meet the requirements of the the Ministry's new strategy up to 2010. In all cases, the target agreements of research and development organisations will be revised in the future to meet the new requirements of the strategy.

For 1999-2001, the Advisory Committee identified five objectives of co-operation (organisation which is responsible for organising related activities in parenthesis, for abbreviations, see the list).

- ◆ Development and quality of personnel in social and health services (TTL);
- ◆ Life styles and health-related behaviour (KTL);
- ◆ Work and work ability (TTL);
- ◆ Poverty and social exclusion (STAKES);
- ◆ Financing of social protection (MSAH/ Finance and planning department).

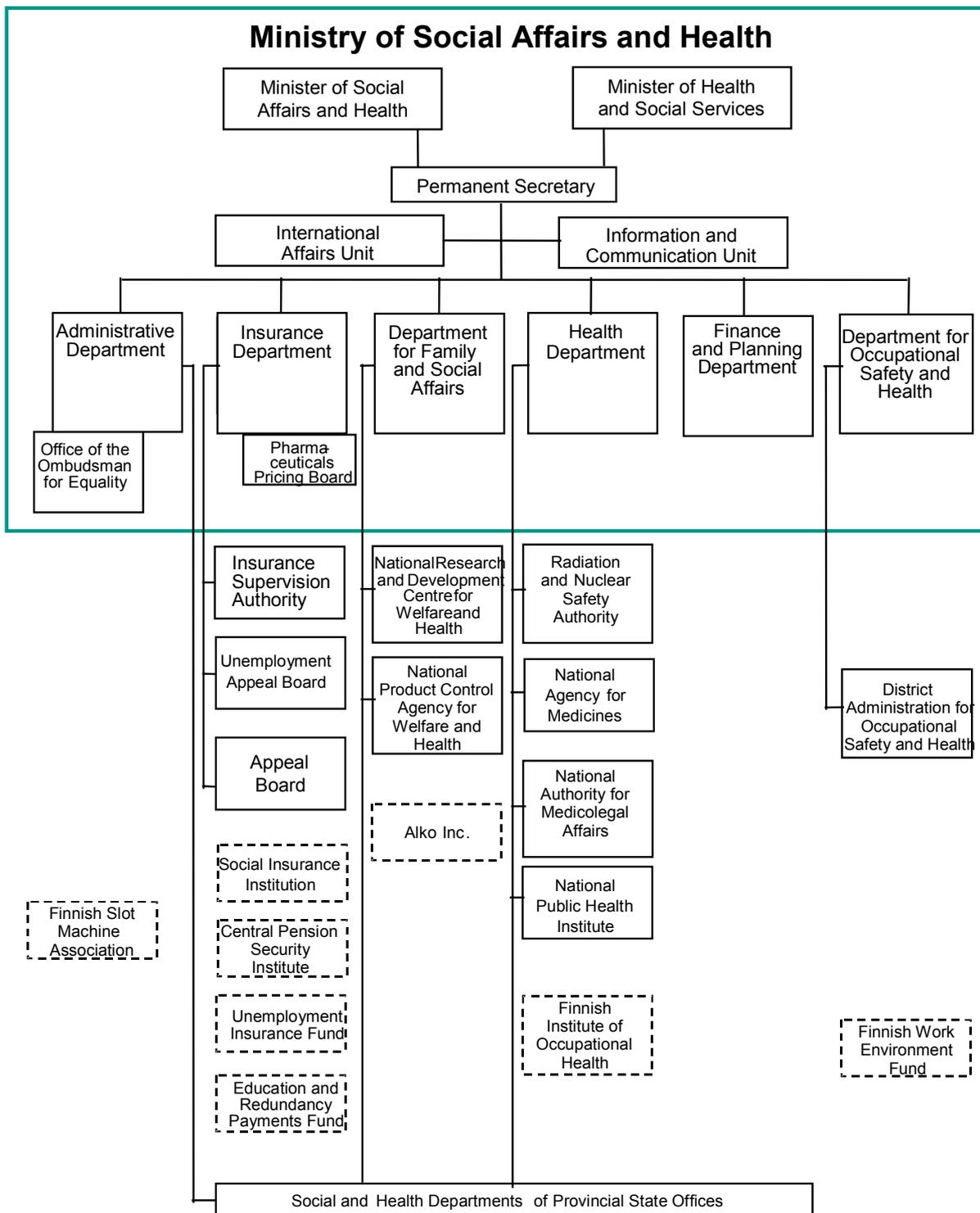
The Ministry strives to ensure proper resources for research and development activities and is responsible for the general setting of goals. As necessary, it draws the attention of the units in the administrative sector to problems in social and health policy that will need new solutions in the near future and that require a more thorough understanding to facilitate decision-making.

Research and development units: an overview

The administrative structure of the Ministry is summarised in figure 1. As the upper part of figure implies, the Ministry is divided between six departments and two ministers. In addition, there are several independent units, such as International Affairs Unit, and Information and Communication Unit, Office of the Ombudsman for Equality, and Pharmaceuticals Pricing Board, which are administratively integral parts of the MSAH. Figure 1 also provides some information on the supervisory structure of research and development organisations to be partly investigated in a more detailed way later. Organisations, which are located into boxes surrounded by dots, are for various reasons administratively independent units that are clearly important parts of national governance system at the field of social and health affairs.

The Ministry of Social Affairs and Health itself is not a research organisation. Its research department was disintegrated in 1987 as a part of a broader adjustment process aimed at clarifying the division of labour between the Ministry and its research and development organisations. More recently, only a planning unit specialised in policy-making issues with specialists in pensions, childcare, disability, social expenditure forecasting and statistics, micro-simulation etc. continued; administratively it forms the sub-unit (known as Planning group, or *suunnittelyryhmä*) of Finance and Planning Department. However, in the different departments of the Ministry, there are a remarkable number of competent persons producing research and development reports. In addition, the Ministry employs some mathematicians and statisticians.

Figure 1. Ministry of Social Affairs and Health, and Related National Authorities, 1.1.2002



From the perspective of Ministry of Social Affairs and Health, research and development organisation external to the Ministry itself can be classified as follows: see table 1: the rest of the study follows its structure.

Table 1. Research and development activities: an overview 2000

Ministry of Social Affairs and Health (Chapter 2).	Untied research and development resources Tied research and development resources
Under the direct supervision of the MSAH (“Sectoral research organisations”) (Chapter 3)	National Public Health Institute (KTL) Finnish Institute of Occupational Health (TTL) The National Research and Development Centre for Welfare and Health (STAKES) Finnish Centre for Radiation and Nuclear Safety (STUK)
Co-operates closely but not under the direct supervision of the MSAH (Chapter 4)	Research and Development Centre of the Social Insurance Institution (the SII). Research Department of the Central Pension Security Institute (the CPSI)
Research and development activities supported through the Slot machine association (Chapter 5)	The Research and Development Unit of the Rehabilitation Foundation. President Urho Kaleva Kekkonen Institute for Health Promotion and Research. Kuntokallio - Center for gerontological training and research The Niilo Mäki Foundation The Family Federation
Organisations who work in the same field providing important input (Chapter 6)	The Academy of Finland The Association of Finnish Local and Regional Authorities The Finnish National Fund for Research and Development National Center for Economic Research Research centres and universities

The Ministry itself forms the first category to be discussed in chapter 2. In this context, also the research and development strategies of the Ministry of Labour and the Ministry of Environment will be introduced as the MSAH co-operates closely with these ministries in designing common research proposals and in co-commissioning research and development projects. The second category, to be discussed in chapter 3, consists of major research and development organisations under *the direct supervision* of the Ministry of Social Affairs and Health, indicating that certain departments of the MSAH have responsibility to supervise and negotiate with these organisations. This administrative structure is included in figure 1.¹³

The research and development activities of the National Public Health Institute (KTL), the Finnish Institute of Occupational Health (TTL), the National Research and Development Centre for Welfare and Health (STAKES), and the Finnish Centre for

Radiation and Nuclear Safety (STUK) are to a major part funded directly from the State's budget.¹⁴ The total gross budget of these organisations was FIM 830 million in 2000. However, the proportion of direct budget funding is far lower due to external (non-budgetary) funding gathered from diverging sources. In fact, in certain organisations, the Act requires that they collect some proportion of their funding from external sources and furthermore, they very often sell their services to other organisations, including private enterprises.

Furthermore, not all of their expenditure will be allocated to research and development activities, as they also have other, more technical or supervisory responsibilities. According to annual report by the Academy of Finland, the funds allocated exclusively for research and development activities in *the administrative* sector of the Ministry of Social Affairs and Health in 2000 totalled about FIM 700 million.¹⁵ After a significant increase in the early 1990s, which was partly due to certain organisational innovations, this amount has remained relatively stable in recent years.

However, these figures must be treated with some caution. Among other things, this figure refers both to net costs and actual research activities. It excludes administrative costs and development activities. In addition, for instance STAKES also acts as a statistical authority. Furthermore, no organisations and costs that are outside the administrative sector have been included into these statistics. Detailed analysis of the costs will be presented in following chapters.

MSAH annually makes target agreements (*tulosopimus*, in Finnish) with these organisations. The target agreement consists of a detailed list of new research and development projects to be conducted by the organisation during the period of next twelve months. The aim of target agreement is to define major tasks, new projects and the budget available for a certain research and development organisation. Most of them are relatively general agreements on certain research topics: for instance, in 1997 STAKES and the MSAH agreed that "STAKES evaluates and researches changes in welfare policy devoting special attention to inequality, exclusion and poverty", without specifying the projects concerned. The agreement of the STUK is even more general: the one of their objectives was "450 publication points, which is equal to one refereed publication published at international forum per researcher's man-year"¹⁶. Sometimes, however, the agreement specifies a topic in a very detailed way. A typical example is a detailed assessment of a recently implemented Act. Such an agreement has a major impact on the allocation of non-bound resources; in certain years, all resources available have been allocated to the issues mentioned in target agreements.

This practice was implemented in the mid 1990s as it turned out crucial to supervise the activities of sectoral research and development organisations towards more social and health policy-oriented objectives. Similar models, which were first adapted at the field of education, exist in all sectors of public administration. These target agreements are evaluated retrospectively by the persons in charge in drafting them. No formal sanctions or formal enforcement model exist for cases that either the Ministry or sectoral research institution is not able to implement the contract. However, the follow-up evidence available suggests that target agreements are closely followed; in fact, the Ministry closely supervises the implementation of the agreement.

The third category of organisations to be investigated in chapter 4 comprises the research and development units of the administrative sector, which participate in sectoral research, although they are independent both financially and administratively

from the Ministry of Social Affairs and Health. In figure 1, their boxes are surrounded by dotted lines. Major organisations in this category include *the Research and Development Centre of the Social Insurance Institution* (SII, or KELA) and the *Research Department of the Central Pension Security Institute* (CPSI or ETK). Administrative, Social Insurance Institutions is under the supervision of Parliament. The 2001 revision of Social Insurance Institution's administrative status did not alter this basic principle. Central Pension Security Institute (ETK) is the statutory central body for the statutory earnings-related pension scheme. Its role is to safeguard a just earnings-related pension for each insured person, and to ensure that the Finnish statutory earnings-related pension scheme is flexible and productive.

A fourth category of research and development organisations, to be investigated in chapter 5 includes research and development organisations of the third sector's associations funded mainly by the Slot Machine Association. Finally, the fifth category of research, to be investigated in chapter 6, includes units which are both located outside the MSAH's research and development sector and receive their funding from other sources, and simultaneously proved very useful collaborators either as (co-)financiers or producers of research and development projects. Major financiers include the Academy of Finland, the Association of Finnish Local and Regional Authorities, and the Finnish Fund for Research and Development (SITRA). National Center for Economic Research and other research centers, and universities' departments are major service producers in this field with well-defined research and development strategies.

In Finland, social and health policies are academic disciplines, which are taught in all major universities. Regarding social and health policy-oriented research, the input of these departments varies to a great extent due to the different orientations of the departments concerned. Clearly, it is not task of the Ministry to influence the research programmes of the universities. Nevertheless, it is more than evident that the Ministry has greatly benefited from those departments, which have specialised in quantitative empirical research providing bright insights and useful information.

2 MINISTRY OF SOCIAL AFFAIRS AND HEALTH

As mentioned above, the Ministry of Social Affairs and Health does not primarily consider itself as a research and development organisation. Instead of research and development, it focuses on policy-oriented decision-making and implementation. However, the Ministry does have some policy-oriented research facilities. The Planning unit of the Finance and Planning Department has over the years achieved the level of excellence regarding institutional research aimed at supporting decision-making and long term planning. Furthermore, also other departments have persons actively involved in research and development activities. Together, there some thirty persons within the Ministry actively involved in research. It is also worth pointing out that MSAH has the higher number of persons with a PhD than any other Ministry in Finland. ¹⁷

Strategies for social policy and research

The Ministry has a significant research and development budget. Until 2000, the administration of the research and development activities was located to the Planning unit within the Finance and Planning Department. However, in 2000, a Research and Planning unit was established within Finance and Planning Department. The aim of the organisational reform was to clarify responsibilities and accountabilities and to provide an effective institutional framework for research and development activities, including the administration of the European Social Fund. Research and development unit carries the main responsibility in organising and funding social and health policy-oriented research and development activities within the Ministry and in co-ordinating social and health policy-oriented research and development activities within the Ministry's sector of activities.

The Ministry's general responsibility includes the following tasks:

- ◆ Strategic planning of research and development activities and ensuring of resources.
- ◆ Strategic planning of research and development activities supporting the development of services and the income security.
- ◆ Ensuring research work related to preventive social welfare and health care and to the prevention of widespread diseases in Finnish population.
- ◆ Development of data management and the necessary statistical and follow-up systems.
- ◆ Development of communication in research and development.
- ◆ General management and development of international research collaboration in the administrative sector.

Every year, the Ministry and all units engaged in research and development activities agree on results to be attained. The fields of priority in 1994 were:

- ◆ economy of social security,
- ◆ integration and internationalisation,
- ◆ structural change in services and in income security,
- ◆ development of information systems, and

- ◆ other follow-up and development projects.
- ◆ international co-operation

In 1995, the strategic plan compiled by the Ministry of Social Affairs and Health, *Strategic choices of social security - towards the 2000s*, defines the strategic cornerstones of social and health policy for the next few years. According to the strategic plan, these cornerstones¹⁸ were:

- ◆ prevention of problems,
- ◆ development of more productive and more economic forms of care,
- ◆ using social security to support people's own initiative,
- ◆ seeking alternatives for unemployment, and
- ◆ putting financing right.

By and large, the 1995 strategy was valid until 2001. However, the Council of the State's programmes (Aho's government 1991-1995, Lipponen 1st government 1995-1999 and Lipponen's 2nd government 1999-2003) have also re-shaped the strategies of the MSAH, generating research and development questions that have not been listed in strategy documents.

In May 2001, the MSAH published its new strategy that fully revised the 1995 strategy. The Ministry sums up the social protection strategy for the next ten years in four strategic lines.¹⁹ These are:

- ◆ promoting health and functioning capacity,
- ◆ making work more attractive,
- ◆ preventing and combating social exclusion,
- ◆ providing efficient services and income security.

The above strategic lines embrace improved co-operation between public health and specialised health care, improved efficiency in occupational health care, support for the general functioning capacity of people in different age groups, promotion of lifelong learning, and various themes in environmental health. Other areas highlighted include well-being at work, increased gender equality, and social protection, which provides an incentive to work. Additional areas of emphasis cover giving priority to preventive policy, early intervention, actions to interrupt long-term unemployment, reducing regional welfare gaps, promoting multiculturalism, controlling substance abuse, and active participation in international policymaking. The key aspects in securing services are the position of the client, quality and diversity of services, adequate supply of labour, management models and regional co-operation. Adequate income security is the key to social cohesion.

According to the MSAH's vision to the year 2010:

- ◆ People will be staying on at work for 2-3 years longer than they do at present.
- ◆ The general functioning capacity of the population will have improved and elderly people will not need care until a more advanced age.
- ◆ Health differences between population groups will have been reduced.
- ◆ Preventive action will have become established as a normal aspect of operations.

- ◆ The quality and availability of services will have been improved through increasingly efficient regional co-operation.
- ◆ Income transfers will secure a reasonable income for people while still providing an incentive to work.
- ◆ Social protection will have a sustainable funding base rooted in collective responsibility supplemented by individual responsibility.
- ◆ Poverty in Finland will remain at the low level of the last few decades.

In Finland, these kinds of strategies clearly guide further actions. Consequently, strategic lines and related visions will be converted into research and development strategies in 2001-2002. For instance, the administrative structure of untied research and development budget will be revised accordingly. Sectoral research and development organisations will also design their strategies so that they are in accordance with strategic objectives. The approach will gradually be implemented through annual target agreements made with sectoral research and development organisations.

Research and development funds of the MSAH

Research and development funding available for the Ministry expanded dramatically during the 1990s. To illustrate this, the total research and development budget of the MSAH was FIM 9.3 million in 1991 (an increase of FIM 0.5 million from 1990), of which FIM 6.4 million was allocated to research and development activities. Using roughly identical definitions, in 2001 FIM 73.7 million was devoted to these purposes, including untied FIM 15 million for general research and development activities. The major expansion occurred in the mid 1990s. Major factors behind this expansion were investments in information technology and society (annually about FIM 20 million) and the rapid increase in different earmarked research and development projects.

Investments in information technology were financed by privatising public enterprises; the minor proportion of these resources was allocated to social and health services and was administrated by the MSAH.²⁰ Earmarked research and development projects were the outcome of rigid budget constraint, which both prevented the expansion of the universal elements of social protection system and created an incentive to design new policy solutions. Finally, some EU-programmes (like DAPHNE) required national contributions, which were budgeted into the category of research and development activities.

In 2000, its research and development resources can be divided into two categories (see table 2). The first category of FIM 15 million comprises an untied research and development budget. The internal structure of the budget is identical with strategic goals of the social and health sector for 2000 and 2001. They in turn are based on the strategic guidelines followed in previous years and the priorities of the programme of Paavo Lipponen's second Government, which began its term of office in April 1999. These research and development activities of the Ministry itself will be assessed in 2002 by an independent authority.

The second category of FIM 25.5 million comprises of research and development programmes agreed separately either in a government's programme or budget negotiations. This category has recently been expanding rapidly. During the Lipponen's second government (1999-2003), the amount available expanded from FIM 15,7 million

in 1999 to FIM 50 million in 2002. The major proportion of this expenditure has been allocated to certain key projects and information guidance; in addition there are several campaigns, among other against gender-based violence. So defined, the *core* research and development budget of MSAH amounted c. FIM 40.5 million in 2000 and FIM 65 million in 2002.

Table 2. The breakdown of the research and development budget of the Ministry of Social Affairs and Health, 2000

Untied research and development budget FIM 15 € 2,52
million

Financing and incentives of social security	2.0	0.34
Supporting employees to maintain the capacity to work and to continue in working life	1.4	0.24
Reducing poverty and exclusion	2.0	0.34
Supporting healthy lifestyles, general fitness and a good living environment.	2.0	0.34
Guaranteeing the standard and efficiency of social and health care services	4.0	0.67
Mainstreaming and gender equality	1.8	0.30
Others (steering and monitoring)	0.8	0.13

Tied research and development budget

FIM 25.5 € 4.29

Welfare clusters and information technology	12.0	2.02
Gender equality	4.0	0.67
National programme of ageing	2.0	0.34
Health care 2000	2.0	0.34
Suburb-projects	1.0	0.17
Social lending – project	1.3	0.22
Networking specialised services	1.0	0.17
Research and development programme aimed at maintaining the capacity to work	1.5	0.25
National subsidy to certain EU-projects and programmes	0.7	0.12

However, beside the resources mentioned in table 2 the MSAH possess other funds that can be regarded as for research and development. Table 3 relies on the extensive definition of research and development activities. Here, the budget is further classified into seven categories. Categories 1-4 amount in total to some FIM 87 million in 2001 and FIM 97.9 million in 2002. If we also will include the state's research grants for specialised health care units, resources available for health education, and various subsidies, the total budget expands up to FIM 510 million in 2001 and FIM 536 million in 2002. This amount can be considered a significant input.

Table 3. The Ministry's research and development budget for a year 2001 and a proposal for year 2002

	2001 (FIM)	2002 (FIM)	2002 (Euro)
1) General research and development	16.6	16.6	2.8
□ Untied research and development	15.0	15.0	2.5
□ Education of occupational health	1.6	1.6	0.3
2) Structural funds	9.4	16.6	2.8
3) Ear-marked resources	38.7	44.7	7.5
□ Social loans			
□ Suburb-programme			
□ Project against prostitution and violence against women			
□ Research and development projects related to social and health action programme			
□ Health care 2000 project			
□ Network-services project			
□ National programme for ageing			
□ Welfare cluster-programme			
□ Programme for workcapability			
□ Information on parental leaves			
□ A study on the efficiency of the Drugs			
□ National financing for DAPHNE-programme			
□ Development programme for health care services			
□ Work-accident programme			
□ Health 2015 National Health Programme			
4) Information technology for social and health services	20.0	20.0	3.4
5) The State's research grant for specialised health care units	337.4	337.4	56.7
6) Health education	43.7	53.5	9.0
7) Subsidies for associations aimed at promoting health and social welfare	45.0	47.0	7.9
TOTAL (1-4)	87.4	97.9	16.5
TOTAL (5-7)	426.1	437.9	90.1
TOTAL (ALL)	510.8	535.8	106.6

Broadly speaking, there is clear trend towards larger research programmes, based on well-defined, social and health policy-oriented questions. Consequently, the MSAH will in future decrease the number of research projects but increase their average size (budget) in order to be able focus on strategic questions. Most of these research programmes exploit large databases or large surveys completed for specific purposes. Simultaneously, the length of research programmes will become shorter.

Co-operation with other ministries

Other ministries contributing to social policy research include the Ministry of Labour and the Ministry of Environment. The Ministry of Labour has extensive research and

development activities, which are closely linked to decision-making and committee work. However, the bridge between the working life and related research and development activities is still relatively modest, despite concerted efforts to develop the suitable forms of action research. In addition to conventional research and development, the Ministry of Labour is able to allocate some proportion of the technical support budget of the European Social Fund to research, development, and evaluation purposes. The research and development activities have been co-ordinated by an Advisory Board (Committee) for the Research and development in Working Life, established in 1989.²¹

The Ministry of Labour published its research and development strategy in 1999 for the years 1999-2001.²² This strategy has been co-ordinated with the broader strategic objectives of the Ministry of Labour, including:

- ◆ Increasing the demand for labour and guaranteeing the supply of labour
- ◆ The qualifications of labour and the maintenance of working capacity
- ◆ Incentives and the prevention of exclusion
- ◆ Activities against discrimination and racism

More broadly, the research and development activities are divided into two categories; these are labour policy research, and labour markets and labour market relations research.

The MSAH has the long tradition of co-operation with the Ministry of Labour in employment and exclusion-related research and development activities. The ministries together commission studies over the year and contribute to common programmes in the fields of labour and social policies aimed at supporting certain strategic objectives, as defined in governments' programmes. The most recent studies include studies on waiting periods in certain unemployment benefits (including interplay between social assistance and unemployment benefits), welfare dependency (a panel data study), ageing, and the adjustment of organisations in diverging circumstances.

The Ministry of Environment is responsible for the environment and housing policy. The Ministry has a large research and development organisation, The Finnish Environment Institute (SYKE), which is the national environmental research and development centre of the environmental administration. Research and development in the SYKE deals with changes in the environment, cause and effect relationships, means of resolving environmental problems, and the effects of policy measures. SYKE is the national environmental information centre and provides expert services and takes care of certain national and international statutory tasks.

The Ministry of Environment has no similar sectoral research and development unit specialised in housing issues, which is clearly a deficient. Furthermore, there is also a very limited supply of research and development units in this field especially in the field of social sciences. However, the Ministry annually commissions research on housing issues.²³ For the year 2001, the housing and construction department of Ministry has listed the following objectives of research and development activities.

- ◆ The realisation of housing policy objectives at differentiating housing markets.
- ◆ The promotion of ecologically sustainable and life-cycle investigations in construction and the emphasising of health aspects of housing stock.
- ◆ Research and development activities related to the quality of air in buildings.
- ◆ Research and development projects related to the implementation of certain construction directives and planning codes (Eurocodes)

The annual research and development of housing department amounts to FIM 8 million. Recently the Ministry of Environment has commissioned studies on the structure of housing markets and the fluctuations in rents in different regions, as well some studies on urban housing policies.

The Ministry of Environment and the MSAH have recently identified the number of common objectives and topics for research, including themes such as the choice procedures of tenant, the structure of housing allowance, and the interplay between housing and social policies. However, at the time of writing no joint projects have been agreed upon.

International co-operation at ministerial level

European research and development activities usually belong to the Ministry of Education, which is also responsible for most of these activities at national level. It co-ordinates, among other things, reparations for, first, Fifth Framework Programme and, now, to Sixth Framework Programme. However, the MSAH has its representatives in those working groups and other preparatory bodies, which are of its interests in the field of research and development activities, thereby contributing in designing national positions and statements.

International research co-operation in the administrative sector is co-ordinated by a section of the Advisory Committee on Social Security Research and Development.²⁴ The section also includes representatives of the Academy of Finland and the Technology Development Centre of Finland (TEKES). The section has 8-9 meetings in a year. For instance, in 2000-2001, the research activities of OECD and many other international organisations were reviewed, and much effort was put into COST-programmes and sixth research framework programme, e-Europe and so on. This section does not make decisions (rather, it broadly discusses the Ministry's position in various policy-oriented processes). However, it has a crucial role in diffusing information.

The longest tradition of international co-operation in the field of social policy research and development activities has evolved between the Nordic Countries (Denmark, Finland, Iceland, Norway, and Sweden). Much effort has been made in order to increase the comparability of social policy statistics between these countries. The Nordic Ministers of Social Affairs set up the Nordic Social-Statistical Committee (NOSOSCO) already in 1946. Today, the Committee has a permanent secretariat in Copenhagen. It is both extending some of its activities to cover Baltic countries and co-ordinating its activities with the member states of the European Union.²⁵

The aim of NOSOSCO is as follows:

- ◆ To be responsible for the co-ordination of the social statistics in the Nordic countries and to undertake comparative analyses and descriptions of the scope and the substance of social security measures.
- ◆ To initiate new projects to improve comparisons of statistics.
- ◆ To inform about Nordic activities, mainly by publishing annual statistics as well as the results of special projects, surveys, etc.
- ◆ To co-ordinate and take part in international statistical collaboration, including activities in the Baltic countries.

The main activities concerning Nordic co-ordination take place partly in working groups/projects and partly in seminars/workshops.

The importance of international research co-operation has increased along with European integration. The membership in the European Union quickly encouraged research related to the social dimension of the EU and related legislation. MSAH's invested some resources to research aimed at clarifying some fundamental issues related to the EU. These studies, among them a comparative study on welfare states in Europe and several publications dealing with the different aspects of the European social dimension, and possible national strategies were commissioned. With regards to foreign partners, one may mention the European Institute for Social Security, which influenced to a significant extent our national strategies. Furthermore, Kela (Social Insurance Institution, SII), STAKES (National Research and Development Center for Welfare and Health), and ETK (Central Pension Security Institute, CPSI) commissioned studies necessary for their activities. These include studies on EU's social law, the interplay of Finnish residence-based social policy and the European mainstream, based on employment, soft-methods in the development of social dimension, pension policies etc. All these issues were previously badly researched.

During Finland's EU presidency (1st July 1999-31st December 1999), the Ministry of Social Affairs and Health invested heavily in conference publications aimed at providing additional information for conference participants. Altogether, six book-length publications were commissioned; they are also published in the Ministry's web page.²⁶ The Ministry has also encouraged sectoral research and development organisations to create and maintain international and comparative projects. Some of these will be investigated in detail later in this study. Within the European Union, the Ministry of Social Affairs and Health has recently co-operated with several research organisations, which have specialised in comparative research. The expansion of the EU would also affect the projects carried out by international organisations. In addition, several research and development organisations have been involved with socio-politically relevant research projects partly or fully financed by the Commission's Directorate for Employment and Social Affairs. Finnish partners have also organised numerous Phare, Consensus, and Tacis-projects, some of which Ministry's senior civil servants have played active roles in designing and implementing these programmes.

At the global level, many organisations, such as the Organisation for Economic Development and Co-ordination (OECD), the International Labour Organisation (ILO) or the World Health Organisation (WHO), and International Social Security Association (ISSA) have for long done valuable work within the scope of social and health policy. Finland has co-funded many research projects, most recently on the changes in labour markets and ageing. In addition, numerous civil servants have acted as evaluators in many projects. *The Council of Europe* has significant research activities, to which Finland has actively contributed by providing researchers and co-funding research and development activities of the social policy department of the Council of Europe and European committee for social cohesion (CDCS).

3 SECTORAL RESEARCH ORGANISATIONS

TTL, STAKES, KTL, and STUK are sectoral research organisations, which operate in the field of social and health affairs under the direct supervision of the MSAH. Within the Ministry, the responsibilities have further been allocated to different departments. These research and development organisations are relatively large units, employing annually, as will be investigated later unit by unit, altogether 2300-2400 employees; the significant proportion of them has temporal contracts of different kinds. Of course, not all persons listed here are researchers. Quite the contrary, other categories of personnel may well form the majority of the persons involved. Nevertheless, more than a thousand persons actively investigate the different dimensions of well-being or the factors that may have influence on them.

Research and development expenditure

Tables 4 and 5 consist of some illustrative and roughly comparable information on related costs. Observe that information provided here covers *all budgeted and related* costs, including the costs of new buildings, rents, personnel, equipment, and so on, of these organisations. Actual research and development budgets are smaller. Furthermore, these numbers are based on budget proposals. Different forms of budgeting techniques, new rules of budgeting, and the forms of creative accounting may have some impact to expenditure. With these reservations, following tables summarises recent trends in expenditure. The grants from the state for these organisations have remained rather stable (with the exception of STUK) during the latter half of the 1990s. However, they have been able to expand their funding from external sources. TTL and STAKES have performed best in this respect.

Table 4. Sectoral research and development organisations, 1991-2001 according to budget proposals, FIM million, current

	1991	1993	1995	1997	1999	2001
TTL		208,7	211,3	251,5	292,5	336,0
□ State's grant	145,0	146,0	150,7	176,5	185,5	195
STAKES (1995-)			91,0	131,8	133,3	170,1
□ State's grant			86,5	112,9	109,1	115,3
KTL	156,0	182,8	188,2	178,0	205,6	222
□ State's grant	78,1	131,8	146,4	144,7	150,8	155,7
STUK	84,8	121,5	91,9	103,2	114,2	127,5
□ State's grant	45,4	79,2	79,8	80,8	89,4	55,4
TOTAL EXPENDITURE	N/A	N/A	582,4	664,5	745,6	855,6
□ State's grant	N/A	N/A	376,9	402,0	425,7	406,1
(ALL)						

Source: Budget

Table 5. Sectoral research and development organisations, 1991-2001 expenditure according to budget proposals, € million, current

	1991	1993	1995	1997	1999	2001
TTL		35.1	35.5	42.3	49.2	56.5
□ State's grant	24.4	24.6	25.3	29.7	31.2	32.8
STAKES (1995-)			15.3	22.2	22.4	28.6
□ State's grant			14.5	19.0	18.3	19.4
KTL	26.2	30.7	31.7	29.9	34.6	37.3
□ State's grant	13.1	22.2	24.6	24.3	25.4	26.2
STUK	14.3	20.4	15.5	17.4	19.2	21.4
□ State's grant	7.6	13.3	13.4	13.6	15.0	9.3
TOTAL EXPENDITURE	N/A	N/A	98.0	111.8	125.4	143.9
□ State's grant	N/A	N/A	63.4	67.6	71.6	68.3

Source: Budget

As mentioned above, the significant proportion of organisations' expenditures are targeted to rents, administration, the maintenance of statistical apparatus, and certain law-based services, such as the supervision of certain organisations (like pupil referral units or *koulukoti* as they called in Finland, and the secure units of mental hospital) and vaccination. There are no reliable time series on "core research and development activities" paid through the state's budget. However, the following table provides some information for the years 2001-2002. These numbers are quite comparable in-between organisations. As you can see by comparing tables 4-5 above and table 6 below, perhaps 2/3 of grants (as well as total expenditure) will be allocated to research purposes.

Table 6. The research expenditure of research and development organisations in the State's budget, FIM million and Euros

	2001 (FIM)	2002 (FIM)	2002 (euro)
TTL	82	85	14.3
STAKES	81	79	13.3
KTL	125	135	22.7
STUK	24.2	25.1	4.2
TOTAL	312.2	324.1	54.5

The evaluation of research and development activities

The Science and Technology Policy Council of Finland has strongly advised in making evaluations in all sectoral research institutions.²⁷ In fact, the evaluation of research and development activities has often been considered as a major incentive device, which is also crucial for learning and decision-making.²⁸ More broadly, the growing importance of evaluations reflects both the changing culture of research and development policy, where the return from a public investment is given a higher priority, and the changing patterns of public sector activity emphasising rationality, responsibility and cost-effectiveness in its all activities.

Consequently, the Ministry of Social Affairs and Health has from 1994-5 onwards also put great emphasis on evaluation in the research and development performance of these organisations. All sectoral research institutions have been evaluated in 1995-2001 by independent teams representing the authorities of research and development activities in related fields. Typically, the teams have assessed organisational structures, personnel policies, the allocation of resources within organisation, and most importantly, the quality (rather than quantity) of the research and development activities. In addition, the evaluation reports consist of some 20-30 recommendations.

KTL was evaluated in 1994-1995, with an extensive background document published in 1995.²⁹ TTL was evaluated in 1995, with a follow-up in 1997.³⁰ STAKES followed next. An international evaluation group first assessed it.³¹ A self-evaluation report published in June 1999,³² and a more policy-oriented follow-up report, published in June 2000³³ supported their report. Finally, STUK was evaluated in 2000-2001, twice, and the final report was delivered to the Ministry in spring 2001.³⁴

As a summary of these evaluation reports, one may argue that international evaluators' reports clearly indicate that the strategies of research and development organisations by and large meet the requirement sets by the Ministry and scientific standards. However, evaluation reports also indicate that there still are significant gaps between the expectations of local and national decision-makers and the content of research and development activities in many fields of research. This result mainly reflects the more general difficulties in linking social policy and research together in fruitful and constructive ways.

In addition, in the case of STUK, the case of outsourcing was introduced: The Panel concluded, however, that any move in this direction should be strongly resisted. Maintaining a considerable level of research within STUK was judged to be essential for acquiring and maintaining expertise, especially in emerging areas, and for attracting and keeping well-qualified staff. In its absence, a gradual decline in competence would inevitably occur, in particular in a field that is now relatively mature and, consequently, less appealing to young scientists.

3.1 National Public Health Institute (KTL)

Administrative position

The National Public Health Institute is a research institute under the auspices of the Ministry of Social Affairs and Health.³⁵ Its task is to study, promote and monitor public health. It was founded in 1911 as a Temporary State serum laboratory, was renamed to Public Health Laboratory in 1970, and National Public Health Institute in 1982. As with all research organisations, the Ministry and the Institute agree on results that the Institute should attain in its work. Within the Ministry, the Department for Promotion and Prevention was responsible for the Institute's activities until the end of 2001. From 2002 onwards, the KTL will be under the authority of Health Department of MSAH.³⁶

Under the Director General Jussi Huttunen, the Institute has the Department of Internal Services and nine other departments. Each department is further divided into units. The Director-General is the chief executive officer and carries responsibility for all aspects of management of the Institute and also for the development of strategy. The Institute operates through ten departments:

- ◆ Department of Epidemiology and Health Promotion
- ◆ Department of Infectious Disease Epidemiology
- ◆ Department of Mental Health and Alcohol Research
- ◆ Department of Microbiology
- ◆ Department of Molecular Medicine
- ◆ Department of Vaccination
- ◆ Department of Health and Functional Capacity
- ◆ Department in Turku
- ◆ Department of Environmental Health
- ◆ Department of Internal Services

Resources

No systematic time series are available beyond the late 1990s. However, over the period of 1997-2000, the KTL has experienced some increase in operating expenses. The operating expenses in the National Public Health Institute's budget for 2000 is total FIM 255 million, of which FIM 141 million comes directly from the State's budget, FIM 94 million from different external sources (especially from the Academy of Finland FIM 16 million), and FIM 20 million from income services subject to charge. (See tables 7 and 8 for details.)

Table 7. Total funding of the KTL 1997-2000, by source of finance, FIM million

	1997	1998	1999	2000
Funds from the Budget	137	147	146	141
Different external sources	66	65	77	94
Income from chargeable services	15	16	16	20
	218	228	239	255

Table 8. Total funding of the KTL 1997-2000, by source of finance, € million

	1997	1998	1999	2000
Funds from the Budget	23	25	25	24
Different external sources	11	11	13	16
Income from chargeable services	3	3	3	3
	37	38	40	43

In around 1982, the KTL employed some 420 employees. Since then, and especially from 1993 onwards, the KTL has experienced significant increase in man-years; however, the increasing proportion of the personnel has been hired temporarily. In fact, the number of permanent personnel has remained roughly stable from the mid 1990s onwards. In 2000, the Institute's personnel output was 781 man-years. On January 1, 2000, the permanent staff numbered 373; about 482 people were employed for a fixed term with money from the regular budget. A total of 218 people were hired with the help of outside research funding; of them 82 were paid from grants awarded by the Academy of Finland. (See table 9 for details.)

Table 9. Personnel of the KTL

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Permanent	436	421	398	380	367.5	378	354	363	380	401
Temporary	168	194	190	209	256.5	308	371	386	387	380
Total	604	615	588	589	624	685	725	749	767	781

Main tasks

The tasks of the National Public Health Institute of Finland (KTL) are to:

- ◆ Produce and evaluate information on the health of the population and issues affecting it, and of measures that can be taken to promote well being,
- ◆ Maintain and develop systems for monitoring the health of the population and process data from other sources for decision-makers and task forces,
- ◆ Conduct basic and applied research which contributes to the development of public health policy and the improvement of the health through health promotion and prevention of diseases,
- ◆ Promote health in all sectors of the society,
- ◆ Participate in nation-wide health campaigns, disseminate information to the public, professionals and decision-makers and support continued education,
- ◆ Promote health together with the international scientific community, organisations and specialists from other nations,
- ◆ Be responsible for the national vaccination program,
- ◆ Be responsible for disaster preparedness.

The KTL has undergone a major restructuring from public health laboratory to research institute over the last twenty years. The majority of the service responsibilities have been transferred to hospitals and municipal health centres. The principal research activities of the Institute have been developed during this period.

The KTL also carries responsibility for a number of public health surveillance and monitoring functions (some of which are statutory responsibilities). The major current statutory responsibilities are

- ◆ infectious diseases surveillance,
- ◆ production and procurement of vaccines,
- ◆ blood alcohol and drug testing from suspected drunken drivers,
- ◆ paternity testing, and
- ◆ screening for neonatal hypothyroidism.

The KTL also assumes responsibility for a wide range of other public health responsibilities. These include the monitoring of major chronic health problems (excluding cancer), risk factors and health behaviour, maintenance of the food composition database and the provision of advice on environmental matters.

The Act issued on the National Public Health Institute states that the Institute shall promote, study, and monitor the health of the population. To carry out the tasks prescribed by law, the Institute, in accordance with the relevant Decree, shall:

- ◆ Conduct research for promoting the population's health,
- ◆ Study and monitor factors affecting the population's health by gathering and processing data on the population's health, prevalence of diseases and causes of illnesses,
- ◆ Make provision for the acquisition, distribution, manufacture and product development of vaccines and corresponding preparations,

- ◆ Develop and perform laboratory tests needed for the prevention, definition and treatment of illnesses and for the monitoring of health conditions, and
- ◆ Develop and perform forensic laboratory tests that fall into the Institute's scope of activities.

Fields of priority in research and development

The goal of the work of the Institute is to improve the health, functional capacity and the quality of life of the population by obtaining information on the causes of diseases and on the means whereby they can be prevented. Activities supporting the work include the maintenance and development of certain information systems important for public health and specialist tasks serving the central administration. The Institute supports health care districts and local authorities by participating in development projects and by collecting and transmitting data on national diseases, their causes and their prevention. The Institute also participates in various experimental programmes, in the training of health care personnel, and in the dissemination of information on health.

The Institute's major service and production tasks include vaccine supply, screening associated with the early discovery of diseases, monitoring of microbiological laboratories, reference laboratory tasks, and certain forensic investigations (tests to determine drunken driving and paternity tests).

KTL's research and expert functions - key areas are as follows:

- ◆ Prevention of national and infectious diseases,
- ◆ Maintenance of the working and functional capacity of the population,
- ◆ Promotion of healthy lifestyles,
- ◆ Reducing the detrimental effects of alcohol and illicit drugs,
- ◆ Reducing environmental health hazards,
- ◆ Reducing the costs caused by morbidity,
- ◆ Development of the health care system,
- ◆ Reducing inequalities in health.

The National Public Health Institute uses roughly half of its operating costs for research and development. The major criteria in selecting topics of study are the severity of the disease, its prevalence and the direct and indirect harm resulting from it, the costs to the health care system and to society, and the opportunities of preventing the disease.

The National Public Health Institute participates actively in international co-operation in all its operating sectors. Priority is allocated to co-operation with the neighbouring areas, research collaboration within the European Union, and development co-operation. The Institute has for a long time maintained close contacts with North American universities, with the Center of Disease Control (CDC) and the National Institute of Health (NIH). Co-operation with WHO [World Health Organisation] is carried out through several centres within the National Public Health Institute. During the 1980s and '90s, the Institute has received ample research funds from abroad, for instance from NIH and in recent years also from the EU.

3.2 Finnish Institute of Occupational Health (TTL)

Administrative position

The Finnish Institute of Occupational Health (TTL) is an independent public corporation, under the auspices of the Ministry of Social Affairs and Health, producing information and specialist services based on scientific applied research on the interaction between work and health.³⁷ Formally established in 1945 as the Foundation for Occupational Medicine, FIOH (TTL) traces its roots to efforts in the early 19th century of industrialists who employed physicians to provide health care for their workers. Over the years, the Institute has developed and matured and today has four fundamental activities, research, the delivery of expert occupational health and safety services, training, and the dissemination of information. During its maturation, FIOH (TTL) has focused successively on the health of workers, the improvement of working conditions, and the development of healthy work organisations and the maintenance of work capacity. All of this aims at preventing occupational diseases and injuries and promoting health and working capacity, to secure a healthier workforce and a sound economic future for Finland.³⁸

Within the Ministry, the Department for Occupational Safety and Health supervises the TTL. Professor Jorma Rantanen has acted as Director General from 1974 onwards. The Central Institute has seven departments for research, development and training, editorial offices for a periodical, an information service centre and assisting departments. The six regional institutes mainly focus on regional service and development work.

The Ministry of Social Affairs and Health and the Ministry of Labour participate in the selection of research topics and fields of priority both during negotiations on results and in the strategy meetings of the Board of Directors. The selection of research topics is also affected by clients' demand and by stimuli arising from research done at the Institute and internationally. Besides representatives of the Ministry of Social Affairs and Health and the Ministry of Labour, the Board of Directors, totalling nine members, includes representatives from the Central Organisation of Finnish Trade Unions, the Confederation of Finnish Industry and Employers, the Confederation of Commerce Employers, the Central Union of Agricultural Producers, and the Confederation of Technical Employee Organisations in Finland.

The Institute is organised into a central Institute with seven scientific departments, one administrative department and one for technical and support services, an Information Service Centre, and the Office of *Työ Terveys Turvallisuus* (Work, Health and Safety), its periodical; and six Regional Institutes located in Helsinki (for Uusimaa province), Kuopio, Lappeenranta, Oulu, Tampere, and Turku. The current management mode is "management by result".³⁹

Resources

The Institute's budget for 1994 was FIM 200 million, of which over FIM 62 million (about 31 per cent) is covered by income from the Institute's own operations. In 1994, the Institute's permanent staff numbered 576, of whom more than half (389) were employed in the Central Institute. Altogether 189 people worked in the six regional institutes. About 75 people had been hired with the help of extra project funds. In 2000, the work input of TTL

was 803 man-years, which is circa eight man-years less than in 1999. Of this work input, 580 man-years was entitled to government's grant (80 per cent of salaries); this is six man years less than a year ago. The rest of the total man-years were financed through other means. (See table 10 for details). The state budget for 2000 granted the Institute FIM 199 million, and in 2001, FIM 200 million. Public funds accounted for 60 per cent of all Institute expenditures. The income from Institute activities amounted to FIM 130 million in 2000. In 2000, FIM 49 million came from services, FIM 47 million from research, FIM 22 million from training and 8 million from publications and information services. In 2001, figures were FIM 56 million, FIM 36 million, FIM 23 million, and FIM 7 million, respectively.

Table 10. The number of TTL's man years and their main source of financing, 1995-2000

	1995	1996	1997	1998	1999	2000	2001
TTL TOTAL (man years)	679	705	738	789	811	803	791
With the state's grants	574	585	585	582	585	580	585
Own incomes	105	120	153	207	226	223	207
Central org. (man years)	453	479	491	524	539	528	537
With the state's grants	387	401	396	396	400	395	403
Own incomes	66	78	95	128	139	133	134
Regional org. (man years)	226	226	246	265	272	275	254
With the state's grants	187	184	189	187	185	185	182
Own incomes	39	42	57	78	87	90	72

Main tasks⁴⁰

The central points in the strategy are: improvement of occupational health, work ability and quality of life of working-aged Finnish people by making the work environment, work methods and work organisations healthier, safer, and such that they promote work ability. This is particularly challenging at present when work life is changing rapidly due to globalisation.

The Institute strives to achieve these objectives by research, expert services, training and education, and by information dissemination, which are its main tasks. Special attention is paid to the scientific basis of the activities, as well as the quality, the needs of Finnish work life, and the effectiveness and appropriateness of the Institute activities, which are regularly evaluated.

The strategic goals of the Institute are directed at three main target areas: promotion of occupational health, improvement of the work environment, and development of work organisations. The Institute focuses on the prevention of occupational diseases and the improvement of the work environment, the promotion of the mental capacity of workers, the development of work organisations, workplace health promotion, advancement of the health and safety of information workers, improvement of the health of young workers, improvement of the quality of occupational health services and occupational safety, and participation in international co-operation.

Services, training and research demands arising from the needs of customers are carried out. The action programs of various lengths carry out development projects at the national level. Eight to ten action programs are going on simultaneously.

Identifying the national and international needs of work life determines, on one hand, the topics of the actions programs, and the possibilities afforded by research results, on the other hand. The programs are the spearheads of the Institute's research and development work, and through them the staff try to intensify the Institute's effectiveness in promoting the health and work ability of people of working age, and in improving the work environment and work life in general.

The achievements presented in this report describe the implementation of the strategy in 2000. The mission of the Finnish Institute of Occupational Health (TTL) is to promote occupational health, work ability and quality of life of working-aged Finnish people. In order to achieve these objectives the Institute produces, compiles, and disseminates scientific information on the relationship between work and health, and promotes its utilisation.

produce, compile, and disseminate scientific information on the relationship between work and health, and promote its utilisation. so that ... working conditions can be made healthy and safe as well as satisfying.⁴¹

The main activities of the Institute are research, expert services, training and education, and by information dissemination. Special attention is paid to the scientific basis and quality of the activities, the needs of Finnish work life, and the effectiveness and appropriateness of the Institute activities, which are all evaluated regularly.

The strategic goals of the Institute are directed at three main target areas: promotion of occupational health, improvement of the work environment, and development of work organisations. The Institute focuses on the prevention of occupational diseases and the improvement of the work environment, the promotion of the mental capacity of workers, the development of work organisations, workplace health promotion, advancement of the health and safety of information workers, improvement of the health of young workers, improvement of the quality of occupational health services and occupational safety, and participation in international co-operation.

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Fields of priority in research and development

◆ Current research on the promotion of workers' health

Promotion of Workers' Health and Work Ability is the broadest of the FIOH's main strategic areas - 104 research projects in the Institute come under this heading in 2000. Occupational health services (OHS) play a key role in efforts to prevent work-related and occupational diseases. OHS activities allow research results to be applied in practice. Projects to support and develop OHS strive to enhance the structure, coverage, input and output of OHS. The role of OHS within the entire health care system is also being surveyed and evaluated.

The central goal of the FIOH's research into this topic is to provide a base of knowledge that can be utilised to prevent work-related and occupational diseases and to enhance identification of these diseases. Musculoskeletal disorders are today one of the most important occupational health problems and a priority area of research work. Improved knowledge is needed of the risk factors involved. The effectiveness of workplace interventions and of rehabilitation and treatment interventions is being studied on the basis of existing knowledge.

The current state of occupational hygiene at worksites in Finland is relatively good. Heavy exposure to agents causing health hazards has become less frequent; thus, it is now important to identify the hazards associated with low exposure levels. In this situation, important targets for research are allergic diseases and cancer. New chemicals are constantly being introduced, and it is impossible to study the possible adverse health effects of them all. It is important to carry out toxicological research that supplements our knowledge of the metabolism of hazardous substances, of their mechanisms of action, and of individual susceptibility to their adverse health effects. Research on reproductive health is continuing among both male and female workers.

◆ Current research on the work environment

There are still notable health and safety problems in the present-day work environment - problems that can, however, be controlled in the majority of cases. Research in this area aims to evaluate workers' exposure to occupational hazards, to develop control measures and reduce health and safety risks, to improve work environments, to devise applications of new technology and, finally, to develop methods to support preventive action at the workplace.

Special emphasis is placed on research projects, which aim to develop work methods, and tools that are safer and healthier. To this end, we have joined global expert networks and increased our input into international research.

There are 43 ongoing projects in 2000. Roughly half of all activities deal with preventive measures to evaluate control and physical factors and air contaminants. Our results have already shown that the present threshold limits can easily be met, and can even be met with a large margin using good ventilation techniques. More attention will be paid to the importance of working conditions for productivity. Research on this topic is being expanded to include more substances and occupational branches. The database on risk factors will be used to collect more comprehensive data, which will be utilised to devise conclusive guidance on hearing loss - and thus for predicting individual risk - by

means of an expert programme.

The introduction of new methods and technology has increased our research into the exposure and health effects of electromagnetic radiation. Factors affecting postural control and factors leading to slipping are being studied in order to increase safety and reduce falling accidents. The protection efficiency of personal protective devices is being evaluated, especially in extreme conditions. To ensure the easy usability of tools and other products, the user-friendliness of their design is being tested by means of virtual models. When new projects are planned, particular attention is paid to their impact on systems. To an increasing extent, research now involves international co-operation.

◆ Current research on the development of work organisations

The research in the field of job redesign and organisational development focuses on the psychological and social factors related to healthy work organisation and the implementation of changes at work. Models and methods of action are developed for the workplaces.

Under the Institute's strategy, research should focus on current challenges in working life. Studies cover structural changes in organisations, new types of contract and working hours, new ways of organising work, the increasing information-intensity of work, new organisational aspects of information technology, the broadly prevalent fatigue and burnout, lengthening periods of unemployment, problems in the career transitions of the young, new challenges related to equity, and globalisation.

The development of innovation and competence are emphasised in the action projects. One field of research aiming at the improvement of organisational cultures is the study of mental and physical safety. Teleworking is also being studied in order to develop workplace guidelines. Management of technological change, production processes, organisational structures and human action are being studied from the viewpoint of competence and wellbeing. This information will be used to develop a conceptual model of work organisations.

Research on equity is continuing and is aimed at increasing acceptance and promotion of diversity in the workplace. Methods preventing harassment and bullying are being produced and research into physical threats at work continues.

One of the main fields of research is mental workload, stress and burnout, and maintenance of human resources. The paths to inequality in health are also being studied, with attention to both work-related and other social conditions. The actions of the occupational health services in developing working conditions are being supported with research and action projects.

New forms of working hours and temporary, atypical contracts are being monitored and their effects on health studied. The effects of interventions to promote the re-employment of the unemployed are being studied to investigate the quality of re-employment and wellbeing.

◆ International collaboration, with special emphasis on research

The topics for research collaboration with the industrialised countries in the field of occupational health and safety have been largely defined by the needs and demands of the

Finnish work life. Wider perspectives have been reflected when participating in the strategic work of the International Organisations. The research priorities have been carried out with relevant leading research institutions in various parts of the world. Key collaborators have been the network of the occupational health institutes in the EU Member Countries, research institutions and universities in the USA, Canada, Japan, Australia and Singapore, as well as sister research institutions in Europe. Topics for collaboration have covered risk assessment of chemicals and toxicology, non-ionizing radiation, occupational allergies, indoor air, psychological load and stress, ageing, brain and work and new technologies (electronics and biotechnology). For each specific topic, the best expertise on the global scale has been searched for.

A model and guidelines for establishing country profiles and national indicators in occupational health and safety have been prepared by FIOH for WHO/EURO. These are now being piloted in Thailand, Vietnam, Estonia, in some African countries, as well as in Europe. The results of this collaboration will form the basis for the further development of occupational health and safety both nationally and world-wide.

In addition to research collaboration, a lot of development work is carried out with the Baltic countries and the neighbouring regions of Russia. The Estonian Finnish EU Twinning project *Development of the Estonian Occupational Health Sector*, with the FIOH as the leading partner, has continued since August 2000. The aim of the project is to support Estonia towards meeting the accession criteria of the European Union in the field of occupational health and safety.

3.3 National Research and Development Centre for Welfare and Health (STAKES)

Administrative position

An organisation known recently as STAKES has a long history as a government authority.⁴² The Finnish Collegium Medicum was founded as early as in 1633, and its successor, the National Board of Health in 1878. The corresponding National Board of Social Welfare was established in 1968. These two Boards were merged to become the National Agency for Welfare and Health in 1991. After further reorganisation of the central government the Agency was transformed into a research and development institution, STAKES, which began operations on December 1, 1992. STAKES is subordinate to the Ministry of Social Affairs and Health, its management system is based on results and its budget is drawn up on the net-basis principle. STAKES rapidly changed from an administrative office to a research and development centre. In addition, it is responsible for a wide range of statistics and registers in the social welfare and health sector.

Within the Ministry, the Department for Social and Health Services supervised STAKES until the end of 2001. After the revision of the Ministry's organisation, the Department for Family and Social Affairs took responsibility over STAKES. From the very beginning professor Vappu Taipale has acted as a Director-General of STAKES. STAKES' functions are supervised and overseen by an advisory board whose members are appointed by the Government. The Board has nine members, including the Director General of STAKES and a personnel representative. Previously, there were fourteen

units managed by result under the Director General of STAKES. The Director General was assisted by a management group and a management support unit. From 2000 onwards, STAKES was reorganised and further divided into four divisions: 1) Health and Social Services; 2) Promotion of Well-being and Health; 3) STAKES Information and 4) administration. Also a Unit for International Development Collaboration exists.

Resources

All STAKES' activities are products of its personnel, working in teams and project groups, and also of individuals. Like all expert organisations, STAKES is most dependent on the qualifications, skills and enthusiasm of its personnel, and the Management is constantly aiming at creating a positive, encouraging and supportive working environment for both the teams and individuals. In the 1990s, the number of STAKES staff steadily grew, in spite of the economic recession of the country. (See table 11 for details.)

Table 11. Type of employment of the personnel in STAKES, 1993-2001

Type of employment	1993	1994	1995	1996	1997	1998	1999	2000	2001
Permanent	126	137	154	199	219	241	249	261	258
Temporary	134	121	104	120	156	166	149	154	176
TOTAL	260	258	258	319	375	407	398	415	435

The operational expenditure of STAKES is covered by funds awarded by the Parliament in the annual budget and, on the net principle, by the project and other funding from the European Union and other sources (see tables 12 and 13 for details).

Table 12. Total funding of STAKES, 1993-2001, FIM million by source of finance

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Non-chargeable: funds from the Budget	102.4	111.1	103.9	124.8	130.4	121.5	124.3	124.6	128.9
Non-chargeable: funds from other sources	2	3.6	6.9	15.1	21.9	23.9	29.5	31.1	27.8
Income from chargeable services	4.3	5.9	12.6	25.3	37.5	37.8	38.9	35	35.5
TOTAL	108.7	120.6	124.1	165.2	189.8	183.2	192.7	190.7	192.2

Table 13. Total funding of STAKES, 1993-2000, € million by source of finance

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Non-chargeable: funds from the Budget	17.2	18.7	17.5	21.0	21.9	20.4	20.9	21.0	21.7
Non-chargeable: funds from other sources	0.3	0.6	1.2	2.5	3.7	4.0	5.0	5.2	4.7
Income from chargeable services	0.7	1.0	2.1	4.3	6.3	6.4	6.5	5.9	6.0
TOTAL	18.3	20.3	20.9	27.8	31.9	30.8	32.4	32.1	32.3

The most dramatic growth has taken place in STAKES' chargeable services. In 1991, it became possible to charge fees for certain services. Orientation to a new 'business' way of thinking took some years, and there were practical problems in e.g. pricing. In STAKES, the income from such chargeable services display more than a sevenfold growth, 4.3 million FIM in 1993 to 35.5 (1997 37.5) million in 2001. Expenditure on such services has in the same period grown fivefold. The increase in the income and expenditure is overwhelmingly achieved by the expansion of international development collaboration.

From 1993 to 1998 budget funds have annually been used to cover the deficit on chargeable services. From 1999 it has been forbidden to use budget funds to cover the deficit. Year 2000 was an exception because the deficit was -2.5 million. The deficit was caused by an unexpected reduction in the income of HEDEC. In 1996 and 1997 the deficit has increased, which is mainly due to the delayed timing of the payments from the EU, i.e. projects have caused costs in these years but they get part of the income in the subsequent year. (See table 14 for details.)

Table 14. Chargeable services in STAKES, FIM million and per cent 1993-2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
INCOME EXPENDITURE	4,3	5,9	12,6	25,3	37,5	37,9	38,9	40,5	35,5
Direct costs	5,6	7,3	11,5	26,1	40,8	36,9	35,6	39,7	39,2
Operating surplus	-1,3	-1,4	1,1	-0,8	-3,3	1	3,3	0,8	-3,7
Share of overall costs	1,8	1,5	2,7	2	2,4	2,8	2,1	3,3	2,9
TOTAL COSTS	7,4	8,8	14,2	28,1	43,2	39,7	37,7	43	42,3
DEFICIT (-)	-3,1	-2,9	-1,6	-2,8	-5,7	-1,8	1,2	-2,5	-6,7
Operating surplus as % of income	-30,2	-23,7	8,7	-3,2	-8,8	2,6	8,5	2	-10,4
Deficit as % of income	-72,1	-49,2	-12,7	-11,1	-15,2	-4,7	3,1	-6,2	-19
Income as % of total costs	58,1	67	88,7	90	86,8	95,5	103,2	94,2	90,6

The conclusion is that STAKES has managed fairly well financially, and its record on the growth of chargeable services is remarkable. At the same time, a perceived threat of leaner years in the future has caused uncertainty and extraordinary carefulness in the use of money. As a result, STAKES has had an 'investment pillow' of up to 20 million FIM to transfer from one budget year to another. In the budget for 1998, 3 million FIM of this reserve fund were cut off. As there have also been other cuts in STAKES' budget, the financial situation in 2000 is considerably weaker than in 1997. In 2001, STAKES is still able to soften the effects of the cuts by using its reserve funds. In 2002, little of the reserve funds will be left, and the drop in the budget will be deeply felt.

The future of funding from outside the government budget is also uncertain. As stated earlier, the MSAH has expressed its unwillingness to continue funding STAKES' projects from its R&D funds. STAKES will have to be increasingly critical in accepting funds from the EU research programmes, as this requires a 50 per cent share of funding from STAKES. The volume of chargeable services is dependent on STAKES' success in competing for big international development projects. All this leads to the conclusion that the forthcoming years will probably be leaner.

Main tasks

STAKES' strategic perspectives were defined to include outcomes and service quality, financial resources, processes and structures, and staff and re-skilling. A total of fifteen critical success factors were defined for these perspectives. The strategic work that was done in 1999-2000 resulted in the updating of the strategy from the year 1997. The national and international evaluation of STAKES greatly supported and enhanced the strategic process as a whole. Definitions on future activities formulated during the BSC work was incorporated in the new strategy "STAKES at the Start of the New Millennium".

The vision of STAKES

In 2007, Finland will be a dynamic and multifaceted information society, in which STAKES will work for well being, health, sustainable development and equality. The vision of STAKES is to be an influential provider of information and know-how in the field of social welfare and health care and a recognised partner nationally and internationally. It will continue to create novel methods for combining research, development and information resources, and to provide new practices for making diversified use of information. As an organisation, it will encourage creativity and co-operation.

STAKES pools resources and know-how to help attain the following national and international goals:

- ◆ *Customer-oriented social and health services form a seamless service chain*
STAKES develops methods and know-how that promote the customer orientation and seamless processes of social and health services and encourages their use in service development. It also participates in projects that have national importance. Customer orientation will make a major difference in social welfare and health services by enhancing

responses to the needs of the citizens. The concept of a seamless service chain is most challenging in service provision; it will make the responsibilities of the authorities, and especially all the grey areas in between, visible and totally change the approach from institution-orientation to client/patient-orientation.

◆ *The social welfare and health care sector uses methods that improve the productivity, efficiency and effectiveness of activities*

STAKES develops methods and know-how that improve productivity, efficiency and effectiveness in the social welfare and health care sector and promotes their use. Method development has steadily gained importance in STAKES' activities when exploring the concept of information guidance. To assess their own activities, municipalities and other actors need reliable methods, rather than single consultations.

◆ *Regional and social disparities in well being remain under control*

STAKES produces information on regional and social disparities in well being and develops means of keeping these disparities under control. It conducts research into poverty, inequality and exclusion from the social and the regional point of view, and is engaged in development work aimed at preventing and combating these phenomena. The formulation of this goal was finalised after major discussions. The MSAH is more determined in its target, which is to diminish differences especially in the field of health. However, it was felt within STAKES that this goal is the most difficult one to achieve through research or policy advice.

◆ *Promotion of well being and health is taken into account in all decision-making*

STAKES develops methods and know-how to prevent problems in well being and health, to promote health, functional ability and well being and to support the incorporation of these goals in all decision-making, including intersectoral issues. STAKES participates in major national projects to promote health and well being. This criterium is the most horizontal one, promoting co-operation with different ministries and societal actors, including NGO's, the private sector and enterprises.

◆ *Guidance by information in the social and health sector is interactive and results-oriented*

STAKES develops methods of interactive information guidance based on equal partnership. It promotes the local, regional and national use of the information and know-how that it produces and disseminates.

◆ *Central customers use and appreciate STAKES' services and products*

STAKES actively acquires feedback from its partners and customers, directs its activities on the basis of the feedback and aims to increase the use of its expertise.

Fields of priority in research and development

Research and development is the primary area of STAKES' activities, to which most of the Centre's resources are devoted. STAKES focuses its research on problems that are important for social and health policy. An effort is made to compile research and development projects to form more extensive entities than at present. Moreover,

interaction between research and development is made more efficient; in particular, the quality of development activities is improved; assessment of the effectiveness of operations is developed; the utilisation of results as products and services subject to a fee is furthered; and activities are made more international.

STAKES' critical success factors and related performance indicators and target levels have been defined within the Balanced Scorecard (BSC) work. STAKES focuses its research and development activities and the creation of information resources so as to support the success factors that represent its outcomes and quality of service. These success factors are as follows:

- ◆ Customer-oriented social and health services form a seamless service chain
- ◆ The social welfare and health care sector uses methods that improve the productivity, efficiency and effectiveness of activities
- ◆ Regional and social disparities in well being remain under control
- ◆ Promotion of well being and health is taken into account in all decision-making
- ◆ Guidance by information in the social and health sector is interactive and results-oriented
- ◆ Central customers use and appreciate STAKES' services and products.

STAKES takes an active part in international co-operation in its field; European integration will give even more impetus to this co-operation. STAKES is already involved in many European research and development projects. These include EU/TIDE, EU/BIOMED, COST A4 (Social shaping of technology), COST A5 (Ageing and technology), COST A6 (Drug policy) and COST 219 (Telecommunication) and the development of indicators of European Social Quality. In addition, STAKES' researchers participate in many joint projects with researcher teams from other countries. STAKES strives to send its researchers to institutes abroad and, correspondingly, to receive visiting researchers. Internationalisation does not mean any decrease in domestic funding, because domestic funding is usually required before an applicant is eligible for international project funding.

3.4 The Finnish Centre for Radiation and Nuclear Safety (STUK)

Administrative position

STUK was established in 1958.⁴³ At first STUK inspected the radiation equipment used in hospitals. STUK's operational area has constantly been diversified with technological and scientific development. In the beginning STUK was a small institute of radiation physics attached to the National Board of Health. As nuclear safety regulation was assigned to the institute, the Institute of Radiation Protection (STL) was founded as an independent safety authority under the Ministry of Social Affairs and Health. In 1984 the name of the institute was changed to the Radiation and Nuclear Safety Authority (*Säteilyturvakeskus*). At the same time the abbreviation STUK was established. Today, STUK functions as an expert organisation in the entire field of radiation and nuclear safety.⁴⁴

Within the MSAH, issues pertaining to the Centre are handled in the Ministry's Department for Promotion and Prevention. Jukka Laaksonen act as Director General of

STUK. The Ministry of Social Affairs and Health, the Ministry of Trade and Industry, the Ministry of the Interior, the Ministry of the Environment, and the Ministry of Labour are all represented on the Centre's Board of Directors. The Centre has four departments: the Nuclear Safety Department, the Radiation Safety Department, the Research Department and the Administration Department. The Emergency Preparedness Unit and the Information Services Unit are directly subordinate to the Director General. The Centre also includes a regional laboratory in Rovaniemi.

Resources

The appropriation allocated to the Centre in the State budget in 1993 totalled about FIM 79 million and about FIM 84 million in 1994. Owing to the Centre's move to new premises, the budget for 1994 includes some one-off expenses. The Research Department accounts for roughly a fifth of the Centre's appropriation (FIM 19.5 million in 1993). Funds from external sources totalled about FIM 8 million in 1993. The personnel output in 1993 was altogether 243 man-years, of which the Research Department accounted for about a third (87 man-years). The personnel of the STUK significantly expanded during the latter half of the 1990s. In 2000, there were almost 300 STUK professionals at service, and 17 on a leave (see table 15, for details.) The total budget was FIM 129 million.⁴⁵

Table 15. The personnel of the STUK, 1996-2000

Personnel	1996	1997	1998	1999	2000
Permanent	216	218	234	248	250
Temporary	45	57	43	36	40
On a leave	15	15	14	13	17
TOTAL	276	290	291	297	307

Source: Toimintakertomus 2000, p. 28.

Main tasks

The Centre's tasks are based on the Nuclear Energy Act (990/87), the Radiation Act (592/91), and the Act on the Finnish Centre for Radiation and Nuclear Safety (1069/83). The main areas of the Centre's activities are (the percentage of total costs in 1993 is given in parentheses): supervision of nuclear safety (45 %), supervision of radiation safety (10 %), preparedness (6 %), research (32 %), services (6 %) and administration (costs divided between other areas).

STUK operates in a large field. First of all it regulates the use of nuclear energy; they do research on the means of radon prevention in Finnish homes and workplaces and study the radiation effects of cellular telephones. Furthermore, it is their task to make sure that when radiation is used the doses are kept as low as possible to achieve the wanted results. These include, for instance, X-ray examinations and sunbed use. The objective is that Finns would be exposed to radiation as little as possible, regardless the source of radiation. As a regulatory agency, STUK sets safety requirements and verifies compliance with them. STUK emphasises the significance of the users' voluntary work in ensuring the safety of their practices. A sound safety culture is built through knowledge, training and motivation. It would mean failure if shortcomings had to be rectified by enacting compulsory measures.

The regulation of nuclear power plants covers the entire life cycle of each facility, from design all the way to decommissioning. The primary objective of regulation is to ensure that the reactor remains under control in all conditions. In Finland there are four nuclear power plant units. Work is also done on the research reactor at the Helsinki University of Technology. The operating organisations are responsible for the safety of nuclear power plants. In accordance with the inspection programme it has formulated, STUK verifies that their operations and related support activities are appropriate and in compliance with safety requirements. Each nuclear power reactor is refuelled once a year, and at the same time the entire plant is overhauled. STUK reviews the respective plans and assesses the technical upgrading, which are carried out to increase safety and reliability. The results of the work are inspected before the plant is restarted. The purpose of safeguarding nuclear materials is to prevent the illicit use of the materials and harmful acts directed at them. The use, storage and transport of nuclear materials are safeguarded in co-operation with the International Atomic Energy Agency (IAEA) and Euratom.

In the field of nuclear waste regulation, STUK assesses the content, quality and comprehensiveness of the plans, research and development work concerning waste management, especially final disposal, so that in time STUK will be able to take a thoroughly considered position on the safety of the proposed methods. The objective is to permanently isolate nuclear waste from the biosphere.

The Finnish approach to nuclear waste management is the final disposal of the spent fuel in the crystalline bedrock. The actual disposal activities will start around the year 2020. The former goal has been met, since the Finnish Government made in December 2000 a Decision in Principle concerning disposal of spent fuel site and the Parliament ratified this decision in May 2001.

The object of regulating radiation practices is the use of radiation and radioactive substances in health care, industry, research and teaching. A safety licence in accordance with the Radiation Act is mandatory for the use of ionising radiation. The licence is granted by STUK. Before a decision on granting a licence is made, the applicant must demonstrate that the place where the radiation is used, the sources of radiation and the protective equipment meet safety requirements. Wherever radiation is used, there shall be nominated a person responsible for radiation safety as well as competent staff.

Radiation doses incurred by workers are monitored with personal dose meters. Data on doses is stored in the dose register maintained by STUK. Regulation of the radiation practices also concerns certain sources of non-ionising radiation, such as radars, lasers and solariums.

Fields of priority in research and development

The Centre's research activities are linked to the Centre's role as an authority and to tasks required by preparedness, their goal being to prevent and limit health risk and other adverse effects of radiation. STUK's primary goals are to prevent and to limit the harmful effects of radiation. Besides research activities, the Centre provides specialist and measurement services on commission. Research focuses on the prevalence of radiation, the effects of radiation, and the elimination of hazards caused by radiation. Even extensive research needs may arise from an unexpected external event or process (for instance, Chernobyl).⁴⁶

The major sectors in research work at the moment are:

- ◆ epidemiology of the health risks of radiation,
- ◆ radiobiological basic research into the risks of radiation (especially from the perspective of molecular biology),
- ◆ natural radiation,
- ◆ environmental monitoring of nuclear power plants,
- ◆ behaviour of fall-out nuclides in the environment, in foodstuffs and in special conditions (Northern Finland),
- ◆ radioactivity in man
- ◆ patient safety in medical examinations,
- ◆ biological dosimetry,
- ◆ operative preparedness, actions during accidents, and
- ◆ non-ionizing radiation.

In 1995-1999, research carried out by STUK yielded new information related to the use, occurrence and effects of radiation and promotes the supervision of nuclear safety. The main emphasis of STUK's work is on projects supporting the Finnish national action plan for environmental health, health risks of radiation and emergency preparedness.

In 2000-2002, STUK's research focuses on radiation protection and the health effects of radiation. During 2000-2002, the main emphasis will be on projects supporting the Finnish national environmental health action plan, the health risks of radiation, emergency preparedness and co-operation with neighbouring CEE areas. EU directives on radiation protection and medical exposure to radiation also influence the course taken by research carried out at STUK. New research priorities also include studies on non-ionising radiation, especially the effects of mobile phone frequency radiation. STUK's research activities are now more international than ever. The institute is involved in about 20 research projects funded by EC. Apart from the European Union and the Nordic countries, STUK's main partners are to be found in Russia, Estonia and the USA.

International co-operation in the radiation and safety field is lively and encompasses many disciplines. Firstly, the Centre's international co-operation is based on the obligations that the Centre must meet as the Finnish executive authority defined in multilateral and bilateral international agreements (nuclear material control, notification systems in case of accidents, assistance during accidents). Another important aspect consists of the exchange of information, exchange of specialists and international research projects in the radiation and safety sector. This type of co-operation is carried out within international organisations (UNSCEAR, IAEA, OECD/NEA, ICRU etc.) and as bilateral collaboration with colleague organisations in other countries. Highly topical fields of co-operation are expert help to improve the safety of nuclear installations in the neighbouring regions of Russia (St Petersburg, Kola), and joint research projects with Eastern European countries to determine the radiation safety situation in the environment and to study the health effects of radiation on people.

4 SOCIAL SECURITY ORGANISATIONS

Social Security organisations are not under the direct supervision of the MSAH. SII, or Social Insurance Institution, is supervised by Parliament. At the time of writing, the revision of supervisory and administrative structures of SII are under revision. From the research and developments' point of view, no significant changes are to be proposed. ETK, or Central Pension Security Institute, is a co-operative body of private pension companies supervised by the Board were labour market organisations, certain ministries and other interests groups are at present. Within the Ministry of Social Affairs and Health, policy issues and other similar factors are allocated to the Insurance Department. No systematic evaluation of the research and development activities of SII and the ETK has been conducted, so far.⁴⁷

4.1 The Social Insurance Institution (SII)

Administrative position

The Social Insurance Institution (SII) is a social security institution under public law, working under parliamentary supervision. It has its own administration and its own finances.⁴⁸ SII is a service institution that maintains and promotes the basic social security of the entire population living in Finland. A representative of the Ministry of Social Affairs and Health serves on the SII's enlarged Board of Directors. After professor Esko Kalimo retired in 2001 after a long service as the head of research and development department, Dr Mikael Forss, who previously acted as the head of the research department in the ETK (CPSI), succeeded him. The Research and Development Centre works under the Director General and has premises in Helsinki and Turku. For internal administration purposes, the unit has been divided into specific research sectors and an information service unit.

SII is required by law to conduct scientific research promoting the development of the social security systems under its responsibility. It has conducted such research since 1964. SII has a legislated mandate to maintain a research and development programme and to use the insights gained to further develop its programme operations. The research and development activities facilitate strategic planning and decision-making aimed at supporting improvements in the individual benefit programmes and in customer service. In addition to implementing the R & D programme, the Research and Development Centre provides policy advice and information services, manages the SII's scientific publication programme, and participates in international co-operation in the area of social security.⁴⁹

The Research and Development Centre carried out a reorganisation at the beginning 2002 with the aim of allocating more resources to research dealing with the social security schemes administered by the SII. This reorganisation will have an impact on the research programme of the Research and Development Centre.

Resources

The SII estimated turnover in 2001 € 9.57 billion. The personnel costs of the Research and Development Centre in 2001 were € 9.08 million. The financial resources of the Research and Development Centre are determined in an annual plan on operations and finances, approved by the SII Board. The SII finances almost all of its research and development activities itself. The number of people working in the Research and Development Centre in Helsinki and Turku at the end of December 2001 was 120, of whom about 50 were researchers and 10 were employed in the information service.

Main tasks

Research and development serve the SII's strategic planning and decision-making. They support the Institution's main tasks and help develop its services. The Research and Development Centre conducts scientific research on the population's welfare, health and well being and on the social insurance systems created to secure them. On the basis of the research findings, the Centre develops both social security and SII's own activities. In addition, the Centre provides training services and is responsible for SII's scientific publications. Within SII, the Centre has been responsible for the monitoring of international trends in social security since the beginning of 1994. In addition, the Economic Department of the SII compiles statistics on the administration of the social security systems. The statistics provide the basis for some principally actuarial surveys and studies.

Fields of priority in research and development

Scientific research work is focused in accordance with SII's duties and activities. The current projects of the Research and Development Centre emphasise research on health, work capacity and functional capacity, and service systems. As a consequence of such factors as SII's new duties and the dramatic increase in unemployment, a higher input should be devoted to the financial aspects of income security and social security.

The Research and Development Centre's main areas of research are as follows:

- ◆ Income security,
- ◆ Health security,
- ◆ Economics of social security,
- ◆ SII's services and administration,
- ◆ Development of rehabilitation provision,
- ◆ Diagnostic laboratory and radiology services.

There are a large number of ongoing research projects within each of these fields. Under the general heading of income security, SII has research projects dealing with changes in welfare, universal social security, unemployment and family policy and social law. Health policy research focuses on health services, sickness insurance, processes ending in disability, rehabilitation, and occupational health. The economics of social security deals with social security systems as part of national economy and economic welfare;

furthermore, SII has an ongoing research project on the financing of social policy in OECD countries. Regarding its own services and administration, SII assesses the organisational structure of services and administration, and the quality of working life among the staff of the Institution.

The Research and Development Centre is responsible for SII's international research co-operation and co-ordinates collaboration, with such organisations as the International Social Security Association (ISSA). The SII is represented on the ISSA committee promoting research and development in ISSA's member social security institutions. The SII serves as a regular research correspondent for the ISSA, and has arranged international experts' meetings for ISSA in Finland. International research and specialist co-operation is also carried out with the World Health Organisation (WHO), the Organisation for Economic Co-operation and Development (OECD) and Rehabilitation International (RI). In addition, the SII co-operates actively with the International Epidemiological Association (IEA), the International Commission on Occupational Health, the Club of Rome, Nordic social security institutions, and other organisations in the social security sector.

4.2 The Central Pension Security Institute (ETK)

Administrative position

The Central Pension Security Institute is the service centre of the Finnish statutory earnings-related pension scheme in the private sector.⁵⁰ The CPSI's statutory tasks include, among others, providing advice and information for the insured and the employers, preparation of legislative amendments, insurance supervision of employers and self-employed persons, maintaining national employment contract and pension registers, distribution of pension expenditure between pension companies and pension funds, and international co-operation. The tasks of the Central Pension Security Institute also include statistics, research and planning activities. The Ministry of Social Affairs and Health supervises the CPSI and the operations of the private pension institutions.

The Central Pension Security Institute carries out research through the Research Department (directed by Dr Seija Ilmakunnas), which produces and disseminates information necessary for the operation and development of the earnings-related pension scheme. In addition, the CPSI's statistical (directed by Mr. Mikko Pellinen) and planning departments (directed by Mrs. Christina Lindell) have expertise and significant activities in the research and development field. These three departments report to director, Professor Hannu Uusitalo. Information is principally produced for the development of the earnings-related pension scheme, decision-makers, the labour market organisations, the State administration, the social research community and various interest groups.

Resources

The costs for the administration of the earnings-related pension scheme are financed by contributions levied by the pension providers of the earnings-related pension scheme. A small proportion of the contribution is used for the Central Pension Security Institute's expenditures, including the costs for the research and development activities.

The budget of the research unit of the CPSI is FIM 4.5 million in 2001. Most of the annual research budget consists of fixed salary and administrative costs. The expenditure for research and development activities of the planning and statistics departments is not taken into account here. Part of the research budget has in recent years been used for purchased services. The budgeted amount has varied from year to year; there is no established praxis.

Research, which serves the demands of the earnings-related pension scheme, has been financed project-wise also by other means than through the actual budget for the research activities. In 2000, for instance, the Central Pension Security Institute contributed to the financing of the fieldwork phase of the Finnish national research project *Health 2000*.

The number of personnel in the research department has remained the same in recent years, 14 permanent employees. To some extent fixed-term researchers have been used lately. In the planning department about 10 experts are employed in research and development activities. In addition, some persons in the statistics department are employed in work which serves the research and development purposes of the CPSI.

Main tasks

The purpose of the research activities serving the earnings-related pension scheme is to produce information about the functioning of the scheme and the realisation of its aims.⁵¹ The aim of the policy-oriented research carried out by the CPSI is defined in the present research program:

The purpose of the research conducted at the CPSI is to produce information, which support the operation and development of the earnings-related pension scheme and public decision-making. The research activities take into account both practical needs and scientific points of view. The practical goal is to produce information on the functioning and development needs of the earnings-related pension scheme and to try to predict the impact of changes in society on pension provision and the functioning of the scheme. The scientific aim is to provide information about the complex interchange between social structure, institutions, administrators and the pension scheme.

Until the beginning of the 1990s, the research conducted at the CPSI focused strongly on the development of the earnings-related pension scheme. The operation of the scheme has been investigated mainly by using micro-data concerning the insured individuals and the benefit recipients. Economic research was restricted to estimates of the financial aspects of the earnings-related pension scheme. As the 1990s progressed, there was pressure to expand economic research, as a result of which the resources allocated for this were increased at the end of the decade. At the moment, the emphasis in the CPSI's economic expertise is on empirical research of public finances and labour market economics in the context of pension policy issues.

Early retirement has long been a key research area of the CPSI. In recent years the focus has shifted towards investigating the connections between working life and social security. The related unemployment problem of ageing persons is an important current

issue and is addressed in the current programme of the Finnish government. Early retirement among Finns and the difficult labour market position of ageing persons will continue to be an urgent problem over the next few years. The causes and interconnections of this problem have not yet been fully identified. It is clear, however, that the problem becomes even more pressing as the post-war baby-boom generation nears the age of 55, the age at which the rate of employment begins to decrease significantly. Research will therefore focus more on maintaining the capacity to work, staying on at work, and the role of pension schemes and broader social structures connected with early retirement problematics.

Information is also needed on the types of pension provision found in countries with social security schemes built on widely differing operational principles and welfare arguments. Comparative research is useful in assessing the feasibility and significance of the Finnish pension scheme. The social security systems in different countries, the legislation that governs them and their development are compared with the aid of conceptual frameworks and statistical indicators.

Fields of priority in research and development

Every few years, the Central Pension Security Institute draws up a research programme. The research projects in the CPSI's current programme for the period 2000-2005 is:

- ◆ Early exit from working life,
- ◆ Employees continuing at work, their work capacity and the company organisation,
- ◆ Turning points in working life and pension provision,
- ◆ International comparative research on social security,
- ◆ Pension provision in the national economy.

Early exit from working life. This project describes the institutionalisation of early exit from working life and analyses different exit paths and their function. The research material consists of questionnaires targeted at ageing persons as well as register data. Issues considered in the project include the significance of illness for early exit from working life, early exit from working life as a phase in life, follow-up of the part-time pension recipients, the effect of these pension arrangements on exit from working life, and the effect of the legislative changes to the part-time pension introduced in 1998.

Employees continuing at work, their work capacity and the company organisation. This project analyses the influence of working life quality, attitudes, and social atmosphere at work, and economic and organisational circumstances of companies on whether or not ageing employees remain at work. Research data include information collected from management and employees in the metal industry and the retail trade. The issues include work-related exhaustion, measures to maintain work capacity in the workplace, attitudes towards early retirement, the connection between company culture and company "age policy", and the connection between enjoying work and the attitudes towards work and retirement. The research on these issues will be continued by collecting follow-up material from the same workplaces, focusing especially on the questions that have proved to be of key importance in view of the current results.

Materials collected by the partner organisations will also be used extensively.

Turning points in working life and pension provision. In this project, changes in the labour market and their impact on gainful employment and pension provision are investigated, based on material at an individual level. Background factors are the economic crisis of the 1990s and the significant decline in employment rates, and changes in the ways of finding employment on the labour market. Crucial issues are the transfers from waged work to self-employment and the changes in work participation of the working-age population at different stages in life. Special attention will be paid to periods of unemployment and training when examining periods outside employment and their significance for pension provision. Regarding life phases, the emphasis will be on young people entering working life and the pension issues connected with this, which have received scant attention in the research on pension provision. The research material includes interviews and questionnaires as well as work history data and earnings data at an individual level, based on the statistics and registers of Statistics Finland, the tax authorities and the CPSI.

International comparative research on social security. This project includes international comparative research studies and analyses, which will help to provide information about the legislative and economic development, background and trends of social security schemes, as well as deepening the knowledge of social security schemes in different countries. The comparative research projects in social security will also aim at understanding the history of social security schemes in different countries in a societal context. The research will be conducted in co-operation with the Social Insurance Institution (SII), and its focus will be on comparative studies regarding social security in the EU countries. International comparisons of the economic effects of an ageing population will be made by participating in co-operation with the Ministry of Finance and the Social Insurance Institution (SII) in projects within the EU and the OECD.

Pension provision in the national economy. This project analyses the interchange between early retirement and the labour market, the distribution of annual earnings and lifetime earnings, and the role of the pension scheme in the public economy both from the national accounting and the generation accounting points of view. The research material used includes panel data at an individual level from Statistics Finland. The earnings development data of the CPSI will be updated and expanded. The theoretical research issues include a description of the pension scheme in generation models, the empirical relevance of the conclusions from this and the impact of the pension reserves on savings and risk-taking in the national economy. To strengthen the economic basis for forecasts concerning the pension scheme, continuous development of forecasting models will be necessary. This includes economic research in the form of analysis and development of underlying assumptions about economic variables such as growth, inflation and employment rates.

Co-operation with other organisations at the national and international level in producing research and statistical information is important for the CPSI's research and development activities. Research co-operation has been carried out with several national institutions. At the international level, the CPSI co-operates with the Nordic Social Committee NOSOSCO, the EU and the OECD. In addition, the Central Pension Security Institute participates as a member organisation in a number of international organisations, for instance, in the International Social Security Association (ISSA) and in the European Institute of Social Security (EISS). Annual conferences, research

seminars and experts' meetings for researchers and specialists arranged by these organisations serve as channels for discussions, distributing information and for publishing research articles.

International research co-operation aiming at joint publications has been scarce so far. From 1998 the CPSI has participated in the activities of the Ageing and Work - working group of the COST A 13 Action. In 2000-2001 the CPSI has participated in a study surveying the disability pension schemes of eleven European countries. Nordic research co-operation aiming at publications has been started regarding the issues of long-term population development and the economics of the pension schemes as well as the balance of public finances.

5 RESEARCH AND DEVELOPMENT ACTIVITIES SUPPORTED THROUGH FUNDING BY THE SLOT MACHINE ASSOCIATION

Finland's Slot Machine Association (RAY) is a significant, widely known organisation with a legal monopoly to function as a gaming operator.⁵² RAY's gaming revenue is utilised efficiently and reliably to benefit people needing assistance and support. Each year RAY allocates the entire profit from its gaming operations to non-profit health and social welfare organisations. These organisations provide Finnish people with information, services and many different kinds of care. In this way voluntary organisations supplement and complement the range of public services available. The Council of State approved assistance in 2001 to 1075 applicant organisations, which received funds totalling FIM 1 513 million. In addition, a total of FIM 546 million was allocated to cover the costs of operating nursing homes and providing rehabilitation for war veterans.

Some of these appropriations are used for research and development. The relative share and volume of research and development vary from year to year. Some organisations have separate research units or teams. Socio-politically, the important ones include *Research and Development Unit of the Rehabilitation Foundation* (located to Helsinki), *President Urho Kaleva Kekkonen Institute for Health Promotion and Research* (the UKK Institute, located to Tampere), *Kuntokallio-center for gerontological training and research* (located to Helsinki), *the Family Federation of Finland* and *the Niilo Mäki Institute* (located to Jyväskylä).⁵³ Their activities will be introduced in this section. (In addition, different associations, especially those, which are focusing on different sicknesses (including alcoholism), have quite extensive research apparatuses.)

Table 16. The research and development funding of the Slot Machine Association for five largest research and development organisations, 1990-2001, € and FIM thousands

	UKK	Niilo Mäki	Kuntou- tussäätiö	Kunto- kallio	Family Federation	Total	FIM
	€	€	€	€	€	€	FIM
1990	1470	0	1978	687	1399	5534	32904
1991	1656	84	1850	899	1507	5996	35651
1992	1623	101	1698	837	1473	5732	34081
1993	1661	101	1963	939	1384	6048	35960
1994	1634	84	1799	760	1292	5569	33112
1995	1634	152	1723	770	1244	5523	32838
1996	1788	242	1870	751	2016	6667	39640
1997	1818	252	2014	677	1807	6568	39052
1998	1701	310	1728	721	1842	6302	37470
1999	1607	372	1801	632	1640	6052	35984
2000	1598	409	1720	614	1655	5996	35651
2001	1679	354	2048	682	1848	6611	39307
2002	1868	413	1803	658	1606	6348	37743

Source: RAY

The data on the RAY funding has been illustrated in table 16. Observe that these organisations may apply other subsidies as well and they may other sources of finance. The RAY spends some € 6.4 - 6.6 million for the research and development activities of these organisations. By Finnish standards, the RAY is a significant source of funding. Both the UKK institute, Kuntoutussäätiö, and the Family Federation received some 30 per cent of resources available. Their proportions have been stable from the early 1990s onwards. A declining proportion is allocated to Kuntokallio; its proportion has decreased from 15 per cent down to 10 per cent, whereas the Niilo Mäki foundation has increased its proportion from virtually nil to over five per cent.

In real terms, there are significant fluctuations, resulting mainly from investments, which vary annually. However, in relation to research and development costs the long-term trend seems to be declining; at least, so major increase cannot be identified from statistics. This reflects both the changing commitments of the RAY to finance such activities and the changing structure of funding, partly due to the EU. The more detailed scrutiny of the data does not imply any major changes in research and development policies; in fact, the organisations have received 85 - 95 per cent of requested funding. (The main exceptions are several investments proposals that have been rejected by the RAY, especially in the early 1990s). The reason for a declining policy is the changing priorities within the budget of the RAY, emphasising a need to invest in policies aimed at combating poverty and exclusion; furthermore, the RAY itself has a relatively tight budget constraint set by government. Therefore, a significant proportion of RAY's income has been saved recently.

5.1 Research and development unit of the Rehabilitation Foundation

The Rehabilitation Foundation is an organisation of diverse expertise in the field of rehabilitation and related health, social and employment services.⁵⁴ Its roots trace back to 1953, when the rehabilitation department of the Foundation for Occupational Medicine was founded. In 1974, the rehabilitation department was separated into an independent institute of the Foundation, besides the Finnish Institute of Occupational Health. After the Finnish Institute of Occupational Health was in 1978 changed into a public corporation, under the auspices of the Ministry of Social Affairs and Health, the Foundation was renamed as the Rehabilitation Foundation. Its functions include specialised rehabilitation and employment services, research and development, and training and information.⁵⁵

At present, the foundation is governed by a board of representatives from (appointed by) the Ministry of Social Affairs and Health, the Ministry of Labour, the Ministry of Education, the Social Insurance Institution (SII), the City of Helsinki, the Helsinki University Central Hospital, the Confederation of Finnish Industry and Employers, and the Central Organisation of Trade Unions. The Foundation has five separate units, those of rehabilitation services, employment services, research and development, training and information, and finance and assisting.

The Research and Development Unit of the Foundation carry out research and development activities. This unit was founded in 1973. The Slot Machine Association funds research and development as well as some other activities of the Rehabilitation Foundation. The budget of the Rehabilitation Foundation for 1994 was FIM 31 million, for 1999 FIM 46.5 million and for 2000 FIM 46.8 million. In 1994, the number of personnel was 107 and in 1999 134.5. The Slot Machine Association (RAY) financially supports the Foundation's activities. In 1994, this basic funding (*toiminta-avustus*) was FIM 9.45 million, in 1999, FIM 9.38 million, and in 2000 FIM 9.12 million.

The basic funding of the Slot Machine Association (RAY) supports a substantial part of the annual research and development activity. Besides, large research and development projects have their own budgets and are supported by, e.g., the Ministry of Social Affairs and Health, the Ministry of Labour, the Social Insurance Institution (SII), the Slot Machine Association, and the European Social Fund. In 1994, the annual budget of the R & D was over FIM 6 million, of which more than FIM 3 million was covered by income from R & D projects. In 1999, the total budget was about FIM 12 million, of which 8.7 million was covered by R & D projects financed by, e.g., In 2000, the total budget of the R & D was FIM 12.54 million, the amount covered by projects being FIM 9.1 million. In 2001, the project funding is essentially smaller than in 1999-2000.

During the 1990's the number of permanent staff of R & D varied between 12 and 13. In 1994, the total number of man-years was 23, and in 1999, correspondingly 34. During 1999-2000, the number of temporary project personnel greatly exceeded the number of permanent staff, but in 2001, the total number of man-years will return to its earlier level.

The mission statement of the research and development in the Rehabilitation Foundation is the following:

To generate new knowledge and identify good practices in order to improve and maintain peoples' functional and working capacity and life control, to enhance employability, empowerment and well being, to prevent social exclusion, and to develop supportive environments.

Rehabilitation research and development is regarded as multidisciplinary activity (health, behavioural & social sciences) and its emphasis on applied research and development. Evaluation of rehabilitation and employment include both micro, mezzo and macro levels. The plan on operations and finances for 1994-1997 specified the following fields of priority for research and development:

- ◆ study of processes leading to social exclusion and exclusion from the labour market
- ◆ development of rehabilitation methods and evaluation of their effectiveness
- ◆ assessment of the functioning of the rehabilitation system, and
- ◆ work on theoretical and methodological issues.

The strategic plan for years 2001-2004 specified the following areas of priority for research and development⁵⁶:

- ◆ Research focusing on functional and working capacity, social exclusion and the need for rehabilitation among the working-age population and special sub-groups, i.e. people with disabilities, long-term unemployed, immigrants or otherwise marginalized groups.
- ◆ Evaluation of the implementation, processes and outcome of rehabilitation and employment models as well as activities aiming to maintain working capacity and to prevent social exclusion.
- ◆ Research focusing on rehabilitation & employment policies and activities on the administrative and service provider levels, including the role of third sector organisations.
- ◆ Research focusing on approaches that aim to enhance self-determination, empowerment and full participation of the service users.
- ◆ Development of rehabilitation methods and models for different user groups, including co-operative models between rehabilitation organisations, social and health care, education and employment administration.
- ◆ Research focusing on theoretical and methodological issues of rehabilitation and related activities.

Areas of special expertise in R & D include:

- ◆ research on living conditions, social exclusion and integration of people with disabilities, long-term unemployed and immigrants,
- ◆ research on rehabilitation of people with e.g., coronary heart disease, low back pain, mental health problems and learning difficulties/reading and writing difficulties,
- ◆ research on early rehabilitation and maintenance of working capacity,

- ◆ research on psychosocial factors in disability, working capacity, and rehabilitation.
- ◆ evaluation of projects and programs in the field of employment, social inclusion and rehabilitation (e.g., projects funded by the European Social Fund and the RAY).

Recent developments include, e.g., development of models of vocational rehabilitation and employment (e.g., supported employment), empowering and strengths approaches in client work (e.g., case management), and psychotherapy outcome evaluation.

Since 1999, the R & D Unit has participated as a national correspondent in three benchmarking and assessment projects financed by the European Commission DG V. It has carried out several development projects with international partnerships and financed by the European Social Fund.

5.2 President Urho Kaleva Kekkonen Institute for Health Promotion and Research (the UKK Institute)

Administrative position

The UKK Institute is owned by a private foundation, the Urho Kekkonen Fitness Institute Foundation.⁵⁷ The Institute is not an official sector research organisation of the Ministry of Social Affairs and Health. However, the Ministry is represented in the Board of Trustees and in the Board of Directors of the Institute. Moreover, the UKK Institute works in tight contact with the Ministry, particularly with the Department for Promotion of Welfare and Health.⁵⁸

The director of the UKK Institute is Dr. Mikael Fogelholm. The Institute operates through eight units, which are:

- ◆ administration unit,
- ◆ unit of health promotion,
- ◆ unit of promoting health-enhancing physical activity,
- ◆ unit of preventing osteoporosis and leisure-time injuries,
- ◆ unit of education and communication,
- ◆ units of internal services (laboratory, information technology),
- ◆ Tampere Research Centre of Sports Medicine (mainly supported by the Ministry of Education; activities are not described here)

Resources

The budget for the year 2000 totalled FIM 14.0 million. The Slot Machine Association covered FIM 9.5 million, research grants (including grants from the ministry of social affairs and health) FIM 2.7 million and incomes from education and training FIM 0,7 million. The UKK Institute has an own building (from the year 1984) which was specially planned for the purposes of the Institute. The laboratory instrumentation includes devices for chemical analyses, physiological and anatomical measurements (e.g. indirect calorimetry for assessment of energy expenditure and cardiovascular fitness, hydrostatic weighing and bioelectric impedance for assessment of body composition, and dual-

energy X-ray absorptiometry (DXA) and peripheral quantitative computed tomography (pQCT) for assessment of bone density and structure) and biomechanical assessments (e.g. muscular performance and body balance). Moreover, the Institute has a library with 9,500 books and 130 journals (including 40 peer reviewed, scientific journals). The staff comprised 55 persons at the end of the year 2000. The staff is multidisciplinary, with high academic degrees in medicine, sports medicine, sports physiology, physiotherapy, nutrition, psychology and social sciences. Eleven persons had a PhD degree.

Main tasks

The UKK Institute is a centre for scientific research, education and training and health communication. The Institute aims to promote people's health and functional capacity by regular physical activity, and to prevent their home, sports, and other leisure-time related injuries. Activities include applied research, development projects, continuing education and dissemination of information. Moreover, the UKK Institute is represented in several task forces of different ministries and health-promotion organisations.

Fields of priority of research and development

(1) Unit of health promotion

The research priority is on/in

- ◆ determinants of physical activity and changes in physical activity, including social, psychological and environmental factors,
- ◆ evaluate and develop strategies and methods to promote health-enhancing physical activity, particularly in primary health care and in health-promotion and sports organisations.

The Unit also carries out several combined research and development projects, mainly concerning health-related behaviour among adults and health-promotion and health-education practices in primary health care. The general aim of these projects is to produce tools and know-how that can be used in every-day clinical practise.

(2) Unit of promoting health-enhancing physical activity

The research priority is on

- ◆ dose-response (modes, quantity) of physical activity and cardiovascular, metabolic and musculoskeletal health, physical functional ability, body composition and health-related fitness
- ◆ development of scientifically valid methods (questionnaires, technical measures) for the assessment of physical activity (modes, quantity)
- ◆ development of scientifically valid methods for assessing and monitoring health-related fitness

The Unit actively promotes (1) the practical development of effective and safe physical activity prescriptions applicable to the general population and (2) the professional use of the developed physical activity and health-related fitness assessment methods by planning,

developing and producing educational material and tester training courses for professionals in health care and physical education. The activity of this unit is also directed to several development projects with health-promotion organisations and the industry. The development of the 2 km UKK walk test to an easy and economical field-test of aerobic fitness has been particularly successful.

(3) Unit of preventing osteoporosis and leisure-time injuries

The research priority is on/in

- ◆ osteoporosis with particular emphasis on examining the effects of physical activity on bone density, structure and mechanical competence,
- ◆ injury epidemiology (numbers, incidences, time trends, costs and consequences of injuries)
- ◆ injury occurrence (etiology, risk factors and mechanisms of injuries)
- ◆ injury prevention (prevention of falls and fall-induced fractures and related injuries among the older adults)

Development projects have dealt with hip protectors for prevention of hip fractures in elderly people, effective but safe exercise programs for prevention of falls and osteoporosis, and the osteoporosis-falls clinic (OSFALL-clinic) for comprehensive assessment and treatment of elderly people with a high risk of falls and related injuries.

The UKK Institute was evaluated by a multiprofessional group of international and national experts during years 1998 and 1999. The group evaluated the Institute's strategies, operational planning and activities carried out during a 5-year period between 1994 and 1998.⁵⁹ SWOP -analysis highlighted several strengths, including high relevance to prevention and health promotion policy, and some weaknesses, including weak vision and weak strategic planning. The evaluators concluded that the UKK Institute fulfils its mission in the field of research on health-related physical activity in an excellent way. Several highly productive and relevant research programmes, with good impact on the Finnish health policy and policy implementation, were recognised. Moreover, the evaluators noted that the Institute has been active internationally in various ways. Recommendations included practises for stronger prioritisation of activities, defining the Institute's role as an instrument in the formulation of health policy, and development of leadership and management with sufficient documentation for follow-up and self-evaluation. The evaluation report lead immediately to reorganisation of the research units, according to the lines drawn in the report. Further organisation development and strategic planning has been ongoing after the change of the director in June 2001.

5.3 Center for gerontological training and research

Kuntokallio functions as the center for gerontological training and research.⁶⁰ Kuntokallio is maintained by the Kuntokallio Foundation. Its has a research staff of ten persons. Director Tapani Sihvola is in charge of the foundation and the Director of Research Anneli Sarvimäki supervises research and development activities. The organisation also has extensive training activities. The main source of basic funding is the RAY.⁶¹

The main interest of the Foundation is to promote favourable conditions of ageing by education, research and development work. Gerontological research at Kuntokallio includes the production of new basic knowledge about ageing and the application of that knowledge into practice within the care of the elderly. The main emphasis is on applied social gerontology. The basic principle of gerontological research at Kuntokallio is multidisciplinary research, which considers ageing as one part of the processes of the life course.

The central aspect of research focuses on social and behavioural questions in the areas of sociology, social psychology, social policy, psychology and pedagogy. The main areas of research include the study of the resources and limitations of ageing, the compensation of the limitations of old age, the individual experience of old age, and the development of methodology.

In 2001, Kuntokallio foundation had three fields of priority:

- ◆ The Quality of Elder Care Services (10 projects)
- ◆ Functional Capacity, Health Promotion and the Elderly (5 projects)
- ◆ Experiencing Ageing and the Life Course (5 projects)

In short, Kuntokallio foundation plays a crucial in its field in Finland.

5.4 The Family Federation of Finland

Väestöliitto, founded in 1941, is a non-governmental organisation specialising in population development and family.⁶² It has 25 member organisations in the fields of social affairs, health and population. The managing director of Väestöliitto is Mr Jouko Hulkko. Väestöliitto works for a society with balanced population development and for the well-being of individuals and families. Väestöliitto also participates in development co-operation in the population field.⁶³

The units of Väestöliitto include: Central Office, The Population Research Institute (including Library), Development Co-operation, Child Care Service, Department of Medical Genetics, Infertility Clinics (Helsinki, Turku, and Tampere), Sexual Health Clinic, Family Clinic, Tampere Clinic and VL-Companies.

Financial administration: Väestöliitto's total income of the year 2001 was € 8,4 million. The support of the Slot Machine Association was EUR 1,6 million, state support (including grants from the Ministry of Social Affairs and Health and Ministry of Education Finland) € 380 000 and own income € 6.4 million.

The staff comprised of 119 persons (besides 140-160 timework nurses in the Child Care Service) at the end of the year 2001. The staff is multidisciplinary, with high academic degrees in medicine, political sciences, political sciences and psychology. 23 persons have a doctorate.

Fields of priority of research and development

The Population Research Institute was founded 1946 and carries out research on population and family issues, maintains a library and information service, and publishes - in co-operation with the Finnish Demographic Society - *the Yearbook of Population Research in Finland*. The Institute arranges seminars and conferences and keeps up

Finnish and international connections in its field.

In 2001 the support from the Ministry of Education Finland to the Population Institute was 152.718 EUR. Its staff includes director, four permanent researchers, research secretary, research assistant, librarian and three Visiting Scholars. Research in progress: Population Policy Acceptance Survey, Paid and unpaid work in families Immigrants in the Finnish labour market, History of the family planning in Finland, FINSEX - Sexuality of the Finns, Somali youth in the contexts of formal education In 2001 the number of publications was 41 (including six books). The staff gave 25 lectures in 2001.

The Sexual Health Clinic aims at improving sexual health by advocacy work, by developing, promoting, and offering sexual health services, by carrying out research and international co-operation. The unit is still the only broad based sexual health clinic in Finland, and internationally also rather unique in its combination of skills in providing services, sexuality education material, and research.

Research priorities are:

- ◆ adolescent sexual development and sexual behaviour; impact of sexuality education and services,
- ◆ adult sexual problems,
- ◆ clinical contraception,
- ◆ reproductive endocrinology.

In co-operation with the pharmaceutical industry, a series of studies are being carried out to determine the suitability of different forms of hormonal contraceptives including male hormonal contraception. Several research projects conducted in co-operation with the Population Council and WHO continue. The Clinic co-operates with international development projects to define adolescents' needs for services and sexual education and investigate their effects on sexual behaviour.

The Department of Medical Genetics mainly does clinical work (genetic counselling), consultations, lecturing, and collaboration with patient organisations and writes information leaflets on genetics and rare diseases for the public. Only a minor part of the work is dedicated to research, often on one's free time. All the major research projects have external funding. The priority in the research is on:

- ◆ rare diseases with particular emphasis on describing and delineating "new" or poorly characterised rare disease entities, investigating their long term prognosis and natural history, and collaborating with research groups aiming at finding the genes behind the rare diseases
- ◆ genetic testing and its psychosocial consequences including acceptance and comprehension of the testing as well as its impact on the life of the individual in the short and long run

Infertility Clinic/Helsinki has several projects. Of them Ovum donation has started in 1991. Several papers and a thesis in 1998 have been published. Ovum donation is an ongoing clinical research programme. The Clinic has had 328 donators during 1991-2001. 640 embryo transfers have been performed of which 33 per cent have resulted in live birth. Our extensive experience on oocyte donation is recognised worldwide. The Clinic has

pioneered the development of In vitro maturation (IVM) of oocytes which is a new method of retrieving oocytes for in vitro fertilisation or microinjection. This new method makes assisted reproduction a simple affair for the woman since no hormonal stimulation of the ovaries is required. Immature oocytes are collected from small antral follicles in a natural cycle and matured and fertilised in vitro. We have run a clinical IVM programme since 2000. Currently perform approximately 80 cycles a year. Every fifth embryo transfer has resulted in a pregnancy and so far eleven healthy children have been born.

Multiple pregnancy is the single most important risk factor in assisted reproduction. Elective single embryo transfer (ESET) is an effective way to reduce multiple pregnancies. The number of ESET has steadily increased during the last four years. Currently about 60 per cent of our embryo transfers are ESET. This has been possible without compromising the pregnancy results. Live birth rate has not changed during the four years, but twin rate has dramatically decreased from 30 per cent to 9.6 per cent. The clinic has also developed noninvasive methods to better evaluate the quality of embryos. The selection of the right embryo for transfer is the single most important factor in the success of IVF. This will be even more vital in the future when ESET will be the treatment of choice.

The research priority of *Infertility Clinic/Turku* is mainly in the field of infertility and gynecology and obstetrics. The main studies are:

- ◆ Determination whether maternal serum hormone levels are altered after infertility treatments, and whether hormone measurements can be used to screen complications during pregnancy.
- ◆ Connective tissue metabolism in the ovary and endometrium and in the endometrial tissue.
- ◆ Studies concerning female hyperandrogenism.

The aim of these studies is to learn more about the pathophysiology of female hyperandrogenism and endometriosis which both are common reasons for female infertility. The other task is to get more information about how infertility treatments change serum hormone levels and can they be used to screen complications during pregnancy. The final aim of these projects is to produce tools and know-how that can be used in every-day clinical practise.

In *Infertility Clinic* all medical doctors and the embryologist have a Ph.D. degree. Two academic dissertations have been published: in 1997 about the effects of parity on fertility and the outcome of repeated pregnancies of grand multiparas (more than 10 deliveries) and in 1999 about intrauterine insemination in treatment of subfertility. Most of our scientific projects are collaborative, multicentre studies focusing to diagnosis of infertility and treatment methods. The main counterparts are Väestöliitto's Infertility Clinics in Helsinki and Turku, Oulu University Hospital, especially Department of Obstetric and Gynecology and Department of Neurology and the Department of Obstetric and Gynecology of Helsinki University Hospital.

In ongoing studies research priority is on/in

- ◆ avoiding a high frequency of multiple births. The multiple pregnancy is the main reason for adverse outcome in IVF/ICSI treatment. The only strategy to avoid twins is to transfer one embryo at a time. We have shown that in selected cases

the transfer of one embryo gives acceptable pregnancy rates. Now we are studying, if we can improve pregnancy rates by culturing embryos longer than in traditional culture method.

- ◆ genetic background of human infertility, especially structural defects of proteins responsible for gamete recognition and subsequent fertilisation.
- ◆ the Northern Finland 1966 Birth Cohort (5188 subjects born in northern Finland for whom data collections were started during pregnancy and a follow up examination was completed at the age of 31 years) studying the association of fertility, irregular menstruation and/or hirsutism and polycystic ovaries. Family history of infertility and hyperandrogenism is also studied.
- ◆ the reproductive function, semen quality and testicular volume in men with epilepsy
- ◆ psychological aspects in pregnancies and deliveries after fertility treatments

5.5 The Niilo Mäki Foundation

The Niilo Mäki Foundation was established in 1990 by the University Association of Jyväskylä, the City of Jyväskylä and by the Support Association of the Child Psychiatric Institution of Haukkala.⁶⁴ Its main administrative bodies are the Board (*hallitus*, with chairman and six members representing the Niilo Mäki Institute, City of Jyväskylä, university and various associations working in this field), as well as an extended board (*valtuuskunta*). The institute had in 2000 seventeen researchers and some circa fifteen other employees. The director of research is Timo Ahonen.⁶⁵

The foundation aims at advancing the neuropsychological research and remediation of children and adolescents by maintaining the Niilo Mäki Institute (NMI), which was set up at the same time. The institute is active in the domains of research and training as well as providing clinical and information services.

Research in the Institute focuses on learning disabilities and, particularly, on neurocognitive disorders which prevent a child overcoming his/her learning disabilities within a normal educational environment. The goal is to identify those disabilities and their expressions in cognitive performance, which are associated with functional brain disorders or neurocognitive disturbances and are connected to the incidence and severity of the learning disorders.

These disorders appear especially in the following areas of learning:

- ◆ reading (dyslexia),
- ◆ naming (dysnomia),
- ◆ linguistic functions (dysphasia),
- ◆ arithmetic (dyscalculia),
- ◆ visuo-spatial orientation (dysgnosia),
- ◆ attentional deficits.

Recently, research has focused particularly on the overlapping occurrence of apparently different learning disabilities, i.e. comorbidity. Research attempts to define those neurocognitive mechanisms which tend to give rise to learning disabilities and, if possible, of finding ways to influence them. E.g. early language development has been identified as

a significant research target in early diagnostics and as a background factor in learning disabilities.

Research is founded on a data basis and the methodologies of neuropsychology, developmental psychology, psycholinguistics, psychophysiology, special education and cognitive psychology. Experts on linguistics, child neurology and neurophysiology have also been engaged in the projects. Amongst others, specialists in data processing have participated in development of remediation and research methodology.

A Child Research Clinic specialising in learning disabilities functions as a part of the Institute. The Clinic aims at providing and developing clinical and consultation services which are related to learning disabilities among children and adolescents as well as to the assessment and remediation of different developmental disorders. The Clinic assists in diagnosing children's disabilities as well as in planning and implementing training and remediation. Remediation experiments using modern methods are performed in the clinic. For its part, this Clinic has created a continuous and natural interaction between clinical services and clinically oriented research.

The Niilo Mäki Institute arranges scientific meetings, congresses, co-operation opportunities between researchers, and training for psychologists, class teachers, special educators, kindergarten teachers, speech therapists and occupational therapists. The goal of the educational activities of the Institute is to convey new information to representatives of different professions who are engaged in work with children with learning disabilities. The research findings obtained in the Institute are published usually in distinguished international scientific journals, and at scientific meetings and congresses in the form of presentations and posters. However, another goal of the Institute is to give as many users as possible access to scientific knowledge and to apply it in their everyday work situations. For this purpose, assessment instruments, remediation methods, learning materials and articles describing development within the field are evolved and published.

The Niilo Mäki Institute plays an important role as an organisation gathering and co-ordinating Finnish expertise and knowledge of learning disabilities. The Institute contributes to national and international co-operation between researchers: it participates in different research networks and arranges scientific meetings and conferences. The Institutes researchers publish their research findings in internationally recognised journals. The directors of the institute hold posts as consultant editors of the "*Journal of Learning Disabilities*", the leading journal in the field. Beginning in 1992, the Institute has also been engaged in co-operation with developing countries at university-level training of expertise and awareness raising related to learning disabilities and neuropsychology. The foundations is also responsible on COST A8 project *Learning Disorders as a Barrier to Human Development*, the dyslexia network Nordles (net om lesehåndicap) under the auspices of the Nordic Council of Ministers (Nordisk Ministerråd) and educational and rehabilitative projects in Africa.

6 OTHER ORGANISATIONS OF INTERESTS

6.1 *Academy of Finland*

The Academy has four research councils, which make research-funding decisions within their respective scopes of expertise. The Academy's research councils are the Research Council for Culture and Society, the Research Council for Natural Sciences and Engineering, the Research Council for Health, and the Research Council for Environment and Natural Resources. Each research council has, in addition to its chair, ten members appointed by the Council of State. In making the appointments, the Council of State hears representatives of the scientific community, including scientific associations, and aims at a scientific expertise of a high standard and the variety of scientific fields on each research council.

The Academy's highest decision-making body is a seven-member Board, which is responsible for the science policy lines of the Academy of Finland and for the allocation of research appropriations to the research councils. The President of the Academy of Finland serves as chair of the Board. The President, the Board and the research councils are appointed for a period of three years at a time. An Administrative Office with personnel of more than one hundred manages and develops the administration of the Academy. The office attends to the preparation of matters to be handled by the Board and the research councils and to putting decisions into effect. Furthermore, various science-policy reports and plans are drawn up in the Administrative Office.

The Academy has four research councils, of which MSAH co-operates with two. *The Research Council for Health* primarily supports high standard research and research with a potential to become high standard.⁶⁶ *The Research Council for Culture and Society* hosts several disciplines⁶⁷, in which research is done at almost every university in Finland. The typical form of co-operation is that the MSAH co-finances research programmes and chooses certain projects suitable for its purposes and interests. Increasingly, the senior staff of MSAH has become member of programme steering groups. A research programme consists of a number of interrelated projects within the same target area of research. Typically, the aim of a programme is to raise the quality of research in the field, to create a sound knowledge base, to increase the networking of researchers and to intensify researcher training. Research programmes are, like the Academy's other forms of funding, for fixed periods.

Recently, the MSAH has co-financed three research programmes. The general objective of research programme on *ageing* is to produce information that can help contain the problems and challenges presented by the ageing of the population. It is expected to produce information for practical application in various sectors from housing and employment to health policy planning and treatment methods. At the same time the programme aimed at strengthening the involvement of the academic research community in the ongoing public debate on ageing. The MSAH chose four research proposals.

The objective of research programme for *health promotion* is to find ways and develop methods with which to promote the health and well being of the nation and citizens.⁶⁸ The research programme was multi-disciplinary. Its objective include the location of major trends in social change, the identification of those trends that have an

impact on health, the conduction of intervention and the impact studies. In addition, some resources were devoted to conceptual and theoretical research.

The Research programme on *Marginalisation, Inequality and Ethnic Relations in Finland* is concerned with the mechanisms and processes that lie behind inequality and marginalisation in Finland, particularly with changes in ethnic relations. The study of marginalisation processes provides important clues for the sensible allocation of measures of economic, social, education and labour policy so that they can be targeted at people who are at particularly high risk of social exclusion. The programme also supports researcher training particularly in the field of ethnic relations' research.

In addition, it is worth mentioning a research programme, which was not co-financed by the MSAH, but which was nevertheless very interesting socio-politically. The research programme *Economic Crisis of the 1990s: Reasons, Events and Consequences* (1998-2000) was concerned with the economic crisis that hit Finland in the 1990s as an economic, political, social and cultural phenomenon.⁶⁹ It was the largest social-scientific project ever financed by the Academy of Finland. In the future, MSAH will be involved with several research programmes.

The Academy has recently published a strategy document titled *Forward Look 2000*.⁷⁰ In this document emphasis is given to the advancement of mechanisms for collaboration between ministries and funding bodies. In addition, the Academy underlines a need to improve the utilisation of research both in decision-making and other spheres of public life. They also note that scientific research and expertise have a significant position in policy-making and decision-making, and emphasise a need to acknowledge "the significance of science in the development of culture, welfare and the economy". However, regardless of these objectives, which are shared by the MSAH, the Academy of Finland will maintain its autonomy to choose and finance research based on scientific value and considerations only.

6.2 Research and development activities of the Association of Finnish Local and Regional Authorities (AFLRA)

The Association of Finnish Local and Regional Authorities (*Suomen Kuntaliitto*) is made up of the municipalities and towns (448).⁷¹ Beside municipalities and towns, it also serves regional councils, hospital districts and other joint municipal authorities. Their service areas comprise municipal finance, legal matters, social welfare and health care, education and culture, urban planning, infrastructure and environmental issues, research and development, information society, information and international issues.⁷² There are four hundred and fifty municipalities and towns in Finland. The annual budgets of the municipalities and joint authorities exceed 145 billion FIM. Administratively, municipalities are under the supervision of the Ministry of Interior.⁷³ The Ministry of the Interior shall monitor the operations and finances of local authorities in general and ensure that municipal autonomy is taken into account in the preparation of legislation concerning local authorities.

The Association of Finnish Local and Regional Authorities has an extensive research and development programme. The annual budget of the research and development programme of The Association of Finnish Local and Regional Authorities FIM 5.0 million. Furthermore, as most projects are co-funded with municipalities and

other organisations interested in these issues, the amount of external funding is some FIM 8.0 million, resulting in the total amount of FIM 13.0 million.⁷⁴ This amount is fully comparable with the MSAH's untied research and development funds. In addition, within the Association of Finnish Local and Regional Authorities (Kuntaliitto), there are other bodies that commission research and development projects, including Efektia Oy and Commission for Local Authority Employers.⁷⁵ The research and development strategy for 2001-2003 lists 64 research and development projects that have initiated in 2000 or 2001; of them 23 are research projects, the rest being more focused on development. The research and development programme focuses on following themes:

- ◆ the politics of municipality,
- ◆ self-governance, democracy and leadership,
- ◆ securing municipal services,
- ◆ employment and the sectors of the economy.

Half of the projects are classified under the theme of "Securing municipal services". Some of the important issues in these projects are evaluation, alternative service models, inter-municipal co-operation, children and the young, and the aged people. Of all the project altogether about a third deals with social and health care.

The largest separate research project in the Research and development programme is the so called Finnish Local Government 2004 programme (for years 1995-2004), a joint research project by the Association of Finnish Local and Regional Authorities and five universities in which the aim is to analyse local authority development systematically and comparably right up to the year 2004. The research programme also forms part of the debate initiated by the Association of Finnish Local and Regional Authorities on the challenges to and changes in the Nordic countries' welfare society in the 1990s.

The objective of the Finnish Local Government 2004 programme has been to construct a sufficiently broad-based local authority research programme, which would be able to provide answers, ideas and research results during the current development period for the debate on the status of local authorities. Municipalities, which represent as well as possible the entire local authority field, have been selected to join in the research. The research project's financing is the responsibility of the Association of Finnish Local and Regional Authorities, together with the participating local authorities.

One central objective of the project is the effective dissemination of research information to support local authority decision-making. The research project is divided into 14 independent research modules. Together these make up a totality that, in regards to results and conclusions, is greater than the sum of the individual modules. The central method of the research programme is comparison. Local authorities are compared to each other and also, in a time series, to themselves. Each research module is reported separately. However, an effort is made to compose totalities in which the research data collected from the different modules is utilised.

6.3 Government Institute for Economic Research

The Government Institute for Economic Research (VATT)⁷⁶ was founded in 1990 by merging a planning organisation (TASKU, Centre for Economic Planning) and a department of the Ministry of Finance (SUSI, secretary for planning). It is an applied economic research unit producing research data in support of economic policy decisions and discussion of alternative courses of action. VATT studies the impact of planned and agreed policy measures on national economic structures, public finances, households and companies, competitiveness and long-term development. Director General of VATT is Dr. Reino Hjerppe.

The assessments completed in 1995 indicated that VATT has certain deficiencies in terms of personnel's education, the quality of publication, as well as the productivity of the personnel.⁷⁷ This rather negative general tone should not cloud the fact that in certain research areas the VATT was assessed as a high quality. No similar evaluation has been conducted recently; however, many of the deficiencies identified earlier have been corrected and the staff of the VATT are now highly qualified and the quality and quantity of research and policy activities well known.⁷⁸ In 2000, of 55 persons working for VATT one third has a doctorate degree in economics or other relevant social sciences. According to its mission,⁷⁹ the VATT will be

- ◆ a research unit for public economy with international reputation
- ◆ (will) investigate policy-relevant questions important for decision-making and citizens.
- ◆ an independent and reliable expert organisation.
- ◆ active, innovative and well-netted producer of information
- ◆ a well directed work-organisation

The annual budget of VATT is FIM 24 million in 2001, of which an increasing proportion comes from external funding. A budget funding is c. FIM 20 million, including certain temporary projects.

The research activities of the Government Institute for Economic Research (VATT) follow the guidelines of the three-year research programme approved by the Executive Board. The programme for 2000-2002 is entitled *Public Finance in a Globalising World Economy*. The key issue of the programme is how public finances can best operate as a resource for the national economy in the new globalising environment. The objective is to analyse the effects of public expenditure, taxation and public regulation on economic growth, efficiency and social welfare. The research programme consists of four project entities: 1) taxation, social security and the labour markets, 2) public finance, corporations, and integration, 3) infrastructures and the environment and 4) welfare state structure and regional development.

The MSAH has commissioned many research projects from the VATT. The most recent ones include studies on the role of social security contributions in explaining the competitiveness of Finnish enterprises, social capital, childcare as an investment, and a study on the relationship between the welfare state and economic growth. Furthermore, SII and ETK have for a long time collaborated with the VATT in issues dealing with pension policy and the financing of social policy. The MSAH has greatly benefited from

the competence of economics research available at the VATT; with the exception of health economics and pension policy, such competence has not previously been available in other research and development institutions. Among other projects, VATT has co-ordinated *The Economic crisis of the 1990s* - research programme funded by the Academy of Finland, which looks at the economic crisis which hit Finland in the 1990s as an economic, political, social and cultural phenomenon.

6.4 The Finnish National Fund for Research and Development

Sitra (the Finnish National Fund for Research and Development) is an independent public foundation under the supervision of the Finnish Parliament. The Fund aims to promote Finland's economic prosperity by encouraging research, backing innovative projects, organising training programmes and providing venture capital. The Fund was set up in conjunction with the Bank of Finland in 1967 in honour of the 50th anniversary of Finnish independence. The Fund was transferred to the Finnish Parliament in 1991. There is no formal links between the MSAH and Sitra; for instance, there is no representation in Sitra's supervisory board (chaired by the Secretary of the State, Raimo Sailas of the Ministry of Finance). This organisation is well resourced; its profits were € 199 million in 2001. Most of it is invested in venture capital; socio-politically relevant research programmes represent a tiny but nevertheless important proportion of its expenditure.

Sitra aims to further economic prosperity in Finland by developing new and successful business operations, by financing the commercial exploitation of expertise, by promoting international competitiveness and co-operation. It is an autonomous pioneer enjoying economic independence. Finally, it also plays a role of an impartial opinion-shaper by providing new research information, anticipating and identifying future challenges, and developing new solutions. Sitra is a creative and flexible pioneer that endeavours to ensure that the ordinary Finn enjoys a better future than at present.

Research funded by Sitra focuses on future challenges facing Finnish society. In the research emphasis is placed on economic considerations. The best national and foreign scholars carry out the projects. Sitra's research builds a store of know-how for decision-makers and national debate. Sitra's research is applied, multidisciplinary and directed towards the future.⁸⁰

Among the most innovative recent studies on fields relevant to social and health one may mention an extensive project on the consequences of globalisation and the study on the Finnish Information Society. Furthermore, one may mention a recent study on the Social dimension of the European Union. Sitra also has some innovative programmes in the field of social and health services, aimed at encouraging the use of networks in providing services and information technology.

6.5 Research centres and university departments

Every major interest organisations has their own research unit. Staffed mainly with economists they provide material for political discussions generally in the field of economic policy. *Labour Institute for Economic Research* (PT), which is an independent and non-profit research organisation founded in 1971.⁸¹ The Institute carries out economic research, monitors economic development and publishes macroeconomic forecasts. The aim is to contribute to the economic debate and to provide information for economic policy decision making in Finland. Their main fields of research are

- ◆ Labour market issues,
- ◆ Public economics,
- ◆ Macroeconomic issues and economic policy and
- ◆ Economic monitoring and forecasting.

Labour institute for economic research has completed many studies commissioned by the MSAH, including most recently studies on the interplay between atypical labour markets and social security.

The Pellervo Economic Research Institute (PTT) is a non-profit organisation that seeks to increase public awareness and understanding of issues related to Finland's economy, particularly matters affecting its agriculture and forestry sectors.⁸² In 2001 research program calls for studies organised under six categories:

- ◆ Public sector,
- ◆ Regional development,
- ◆ Entrepreneurship and co-operative enterprises,
- ◆ Agriculture and food production,
- ◆ Viability of Finnish agriculture, and
- ◆ Forestry.

The PTT has completed several projects commissioned by the MSAH, among them a study on ageing and demand for social and health services.

The Research Institute for the Finnish Economy (ETLA) is a research community of more than 50 individuals with expertise accumulated in diverse fields.⁸³ ETLA seeks to continuously develop means to address challenging questions related to current economic, business and social policy issues. They have six research programmes, dealing with

- ◆ Technology, competence and competitiveness,
- ◆ European integration,
- ◆ Industrial economics and international business,
- ◆ Finance and macro-economic research,
- ◆ Labour market research, and
- ◆ Environmental research.

The MSAH has for years commissioned research on intergenerational accounting and FOG models (together with ETK and SII), as well as research on ageing.

During the 1990s, many universities established multidisciplinary research centres specialised in various topics. *The Turku Center for Welfare Research* (abbreviated as TCWR), organised jointly by Turku University (departments of Social Policy⁸⁴ and Sociology), Turku Business School and Åbo Akademi (university for Swedish-speaking persons) is a new body aimed at organising multi-disciplinary welfare research. This center, and related departments, is well known both nationally and internationally on its quantitative but/and policy-oriented approach to social policy. From 2001 onwards, TCWR will be responsible on TOPSOS-education for senior civil servants, commissioned jointly by the MSAH, Central Pension Security Institute and Social Insurance Institution.

At the University of Tampere, there are two policy-oriented research centers. *Work Research Centre* is part of the university's Social Science Institute and is concerned with work and working life.⁸⁵ The MSAH has commissioned several studies, occasionally together with the Ministry of Labour on early retirement and active labour market policies. In 1996, the University of Tampere in 1996 founded *the Information Society Institute*, the purpose of which is to create the opportunities for multidisciplinary information society research and teaching.⁸⁶

Finally, a few words on the social policy and health policy departments of universities. Social and health policies are strong academic disciplines in Finland. Social policy (societal policy in certain universities) as a discipline has its roots in the 1940s, and expanded rapidly in 1970s. Social policy (or societal policy) has academic chairs in Helsinki⁸⁷ (including Swedish speaking professorship at Social och kommunalhögskolan), Joensuu,⁸⁸ Jyväskylä, Kuopio⁸⁹, Tampere⁹⁰, Turku⁹¹ (also including a Swedish speaking professor at Åbo Akademi, who is located to Vaasa) and Rovaniemi (department of Social Work)⁹². In addition, there is a department for social and health administration at the university of Vaasa.

Departments of social policy have specialised in the course of decades. Department of Social Policy at the University of Turku is clearly most policy-oriented department, with good knowledge on empirical and quantitative research and policy-oriented research problems.⁹³ The department attaches particular importance to the theory of social action, comparative welfare state analysis including social insurance and social services, poverty and social deprivation, child welfare, population and migration. Social Department for social sciences at Kuopio university has done work on subjective insecurity and related topics. Departments of social work and sociology at Rovaniemi university have a specific profile, where research focusing on regional problems plays a key role. Furthermore, the university's department of sociology has very extensive health and labour market research. Universities of Tampere, Jyväskylä and Helsinki have large departments in social policy. All of them have recently completed the limited number of policy-oriented research, but a general orientation of research and education is clearly more theoretical and qualitative.

In health care research, these departments are mainly in medical sciences. Departments of health policy and health research, with whom the MSAH most actively cooperates, are associated with the universities of Kuopio, Tampere and Turku. Department of public health and general practice in Kuopio university has specialised in issues like prioritisation, the management of health care systems and health economics.⁹⁴ The department is an increasingly important for Finnish health policy-making. Tampere

School of Public Health in Tampere university has organised training for health management; they also have a chair in social and health policy.⁹⁵ The department of national health in Helsinki university has significantly contributed for research in health management and administration; they have also investigated health differences.⁹⁶ Finally, department of public health and general practice at the university of Oulu has, among other things, specialised in cohort analysis, based on life course analysis of child cohort 1966.⁹⁷

7 CONCLUSION

In this report, the institutional and organisational frameworks of Finland's research and development organisations have been introduced to the reader in order to provide a descriptive map on these activities in the field of social and health sector. The focus has been in the evolution of institutional solutions, organisational structures, and the strategic objectives of research and development activities. Only limited attention has been paid to actual research and development conducted in these organisations. A thorough review of these activities, further divided into the sufficiently large number of topics, would be worth of another assessment. With the exception of reviewing research and development evaluations, no assessment on the quality of research and development activities have been made.

However, the institutional, organisational and strategic analysis of research and development policy conducted here may be of some interests in a comparative context. No systematic information has yet been available from other EU-countries. This itself is quite surprising, given the supposedly crucial role of research and development activities in social and health policy-making. However, more fragmented personal experience implies that the number of diverging organisational and institutional solutions exist in different member-states.

Clearly, there are many diverging institutional solutions and organisational models with diverging strengths and weaknesses in different countries. Furthermore, no systematic and comparative information completed by social welfare administration is available on the interface between research (and development) and the decision-making, or researchers and decision-makers. However, different member states of the EU have invested quite heavily in such case studies – often under the pressure to show usefulness of research and development activities for governments and budget makers. Research policy makers of social and health policy would greatly benefit from both an historical and comparative analysis, focusing on such issues.

portti. To be published by the Ministry in 2002.

¹⁸ MSAH: *Strategic choices of social security - towards the 2000s*. Publications of the Ministry of Social Affairs and Health 1994:5, Helsinki 1994.

¹⁹ Following draws from: *Strategies for social protection 2010 – toward a socially and economically sustainable society*.

²⁰ Prihti, Aatto: *Assessment of the Additional Appropriation for Research*. Sitra Reports series 2, Helsinki 2000, p. 18.

²¹ Työelämän tutkimuspolitiikan neuvottelukunta.

²² Following relies on *Työministeriön tutkimusohjelma vuosille 1999-2001*. Työministeriö. Toimeenpanosasto. Timo Filpus - Päivi Järvinen - Pertti Linkola, 30.9.1999.

²³ Ympäristöministeriön tutkimus- ja kehittämisstrategia. <http://www.vyh.fi/ym/tutke/tutkeind.htm>

²⁴ In Finnish "Kansainvälisen tutkimusyhteistyön jaosto", chaired by Director-General Jussi Huttunen of KTL.

²⁵ <http://www.nom-nos.dk/nososco.htm>

²⁶ <http://www.stm.fi/english/index.htm>.

²⁷ Tiede- ja teknologianeuvosto. Periaatepäätös 17.6.1993 toimenpiteistä keskushallinnon ja aluehallinnon uudistamiseksi.

²⁸ This phrase was borrowed from Stiglitz, Joseph: Evaluation as an incentive instrument. In Picciotto, Robert & Wiesner, Eduardo (eds): *Evaluation and Development*. Transaction Publishers, New Brunswick 1998, pp. 287-290.

²⁹ Evaluation of National public health institute of Finland - Kansanterveyslaitos (KTL) See also; National Public Health Institute: *Background Material for the international evaluation*. 10.3.1995. KTL, Helsinki 1995.

³⁰ *The Scientific and Functional Evaluation of the Finnish Institute of Occupational Health*. Ministry of Social Affairs and Health, Finland. Publication Series 1995:9. Evaluators were J. Donald Millar, Erik Dybing, Christer Hogstedt, Michael J. Smith, and Jean-Jacques Vogt.

³¹ *International Evaluation of the National Research and Development Center for Welfare and Health*. Ministry of Social Affairs and Health, June 1999, Helsinki 1999.

³² Uusitalo, Hannu & Kajander, Ani (eds): *STAKES the First Five Years*. Activities 1993-1997. Self-evaluation Report. STAKES, Helsinki 1999.

³³ Huttunen, Jussi: *Miten Stakesin tutkimustoimintaa ja laitoksessa olevaa osaamista voitaisiin paremmin käyttää hyväksi päätöksenteon eri tasoilla*. Sosiaali- ja terveysministeriö, työryhmämuistioita 2000: 12, Helsinki 2000.

³⁴ In the spring of 2000 an International Atomic Energy Agency (IAEA) team IRRT evaluated STUK's effectiveness as an authority in ensuring nuclear and radiation safety. Another international group of experts evaluated STUK's research activities in the end of the same year.

³⁵ www.ktl.fi

³⁶ This chapter has been co-drafted by the KTL.

³⁷ www.ttl.fi

³⁸ This chapter has been co-drafted by the TTL.

³⁹ Based on a memorandum dated 21.3.2001/TTL

⁴⁰ For details, see Työterveyslaitos, vuosikertomus 2000. Helsinki 2001.

⁴¹ Cited from: Rantanen, Jorma: *Finnish Institute of Occupational Health*. Activity Report 1990-94. Executive Summary, p. 1.

⁴² www.stakes.fi

⁴³ www.stuk.fi

⁴⁴ Following draws heavily on information made available by the STUK in its webpage. <http://www.stuk.fi/english/>

⁴⁵ Säteilyturvakeskuksen vuosikertomus 2000.

⁴⁶ Report of the international regulatory review team (irrt) mission to Finland, HELSINKI 13-23 March 2000.

⁴⁷ I thank Hannu Uusitalo (of ETK) and Mikael Forss (SII) for providing information on this theme.

⁴⁸ www.kela.fi

⁴⁹ <http://www.kela.fi/tutkimus/research.html>
⁵⁰ www.etk.fi
⁵¹ Many of the details are drawn from the research programme of the CPSI issued in 2000.
⁵² [Www.ray.fi](http://www.ray.fi)
⁵³ These organisations have been selected by the RAY to be investigated here.
⁵⁴ www.kuntoutussaatio.fi
⁵⁵ Following text has been accepted by Dr Aila Järvillehto, 26th September 2001.
⁵⁶ Based on a memorandum Kuntoutussäätiö/TKY, dated 5.4.2001.
⁵⁷ <http://www.ukkinstituutti.fi/>.
⁵⁸ what follows draws directly from the draft provided by the UKK-institute.
⁵⁹ International Evaluation of the UKK Institute. The evaluators include Professor Jorma Rantanen (chair), Professor Felix Gutzwiller, Mr Hans Hagendoorn, and Ms. Suvi Lehtinen.
⁶⁰ <http://www.kuntokallio.fi/>
⁶¹ What follows in drawn from <http://www.kuntokallio.fi/english.html#intro>, and from information made available by Slot Machine Association / Olli Paikkala.
⁶² www.vaestoliitto.fi
⁶³ Following text has been submitted by Director Ismo Söderling, 27 May 2002. For a further information, see <http://www.vaestoliitto.fi/english/index.html>,
⁶⁴ <http://www.jyu.fi/nmi>
⁶⁵ Most of information provided here draws from <http://www.jyu.fi/nmi> and from information made available by Slot Machine Association/Olli Paikkala.
⁶⁶ Biomedicine, Veterinary Medicine, Pharmacy, Dental Science, Nursing Science, Public Health Science, Clinical Sciences, Sport Sciences, Nutrition, Occupational and Environmental Medicine, as well as Biochemistry, Genetics, Microbiology, Biotechnology, Molecular Biology, Cell Biology, Biophysics and Bioinformatics when relating to the above fields.
⁶⁷ Philosophy, Theology, History and Archaeology, Cultures Research, Aesthetics and Arts Research, Philology and Linguistics, Law, Psychology, Education, Social Sciences, Economics, Political Science and Administration, Communication and Information Sciences, and Statistics.
⁶⁸ What follows, draws heavily the Academy of Finland: *Health Promotion Research Programme*. Academy of Finland, Helsinki 2000.
⁶⁹ <http://www.vatt.fi/lamatutkimushanke/index.htm>. See also: *1990-luvun talouskriisi: Syyt, tapahtumat, seuraukset –tutkimusohjelma*. VATT, Helsinki 1998.
⁷⁰ Academy of Finland: *The Academy of Finland's Forward Look 2000*. Suomen Akatemian julkaisuja 3/00, Helsinki 2000.
⁷¹ Text accepted by the head of research Marianne Pekola-Sjöblom.
⁷² The Commission for Local Authority Employers deals with labour market issues in the Association. Also the companies of the Association Group, i.e. Audiator, Efektia, Gustavelund, KL-Hallintopalvelut, KL-Kustannus, Kuntakoulutus and Plancenter serve the municipalities and joint authorities.
⁷³ The Finnish Local Government Act. Issued in Helsinki, March 17, 1995
⁷⁴ *Suomen Kuntaliiton tutkimus- ja kehittämisohjelma 2001-2003*. Suomen Kuntaliitto, Helsinki 2001.
⁷⁵ <http://www.kuntatyonantajat.fi/>
⁷⁶ The text below is approved by VATT/administrative director Jouko Kajanoja, 29th of August 2001.
⁷⁷ Relander, Timo: Arviointi Valtion taloudellisen tutkimuskeskuksen (VATT) toiminnasta vuosina 1990-1996, Helsinki 31.7.1995; and Pohjola, Matti: Valtion taloudellisen tutkimuskeskuksen tutkimustoiminta, Helsinki 29.6.1995.
⁷⁸ Hjerppe, Reino: VATT 10 vuotta-tutkimustuloksia ja visioita. VATT muistioita 51, Helsinki 2000.
⁷⁹ This information has been provided by administrative director Jouko Kajanoja, PhD of the VATT.
⁸⁰ <http://www.sitra.fi/english/publications/areng00.pdf>
⁸¹ <http://labour.fi>
⁸² <http://ptt.fi>
⁸³ <http://etla.fi>
⁸⁴ Opetusministeriön alainen korkeakoulujen arviointineuvosto on nimennyt Turun yliopiston sosiaalipolitiikan vuonna 1999 yhdeksi 20 Suomen korkeakoulujen huippututkimuskeskukseksi.

Yliopistokoulutuksen laatuysiköt 2001-2003.

⁸⁵ <http://www.uta.fi/laitokset/tyoelama/xprojektit.html>.

⁸⁶ <http://www.uta.fi/laitokset/ISI/english/index.html>

⁸⁷ <http://www.valt.helsinki.fi/sospo/>

⁸⁸ <http://www.joensuu.fi/yhteiskunta/index.html>

⁸⁹ <http://www.uku.fi/laitokset/yhttdk/yhtkunt.htm>

⁹⁰ <http://www.uta.fi/laitokset/sospol/esittely/sosiaalipolitiikka.htm>

⁹¹ <http://www.utu.fi/yht/sospol/>

⁹² <http://www.urova.fi/home/ytk/sostyo/>

⁹³ Department of Social Policy – University of Turku, May 16, 2001. The data was collected by Ms Leena

Koivusilta

⁹⁴ <http://www.uku.fi/departments/publichealth/index.html>

⁹⁵ <http://www.uta.fi/laitokset/tsph/indexeng.htm>

⁹⁶ <http://www.kttl.helsinki.fi/>

⁹⁷ <http://kelo.oulu.fi/>