

COORDINATORS' REPORT



SYTTY

Finnish Research Programme on Environmental Health

15 May, 2002

Jouko Tuomisto

Professor, Programme Director
Tel: +358-(0)17-201300
e-mail: jouko.tuomisto@ktl.fi

Soile Juuti

PhD, Programme coordinator
Tel: +358-(0)17-201163
e-mail: soile.juuti@ktl.fi

Heli Leinonen

Secretary
Tel: +358-(0)17-201321
e-mail: heli.leinonen@ktl.fi

Postal address:

Environmental Health Division
National Public Health Institute
P.O.Box 95, FIN-70701 Kuopio

www.ktl.fi/syttty

CONTENT

- 1 INTRODUCTION
- 2 OBJECTIVES OF SYTTY
- 3 LAUNCHING THE PROGRAMME
- 4 COORDINATION
- 5 STEERING GROUP
- 6 ANNUAL REPORTING, EVALUATION
- 7 SEMINARS AND MEETINGS
- 8 DISSEMINATION OF INFORMATION
- 9 PUBLICATIONS
- 10 DOCTORAL TRAINING
- 11 INTERNATIONAL CONTACTS
- 12 CONCLUDING NOTES

One definition of environmental health:

*Environmental health comprises those aspects of human health and disease that are determined by factors in the environment.
It also refers to the theory and practice of assessing and controlling factors in the environment that can potentially affect health (WHO).*

1 INTRODUCTION

Finnish Research Programme on Environmental Health - SYTTY, was launched in 1997 by the initiative of a number of ministries and public authorities. An action plan for environmental health, paying attention to the research needs, was drafted during 1995-1996 by the Ministry of the Environment and the Ministry of Social Affairs and Health. In 1996, the European Science Foundation (ESF) also started a research programme on environmental health, and the Academy of Finland joined this programme.

The Academy of Finland held round-table negotiations to start drafting a research programme on environmental health on 2 December 1996. Representatives of a number of ministries and research institutes, as well as of other interested parties, participated in the meeting. On the basis of the discussions, the Academy decided to embark upon planning a research programme. The board of the Academy approved the content of it on 10 June 1997. The programme was planned to be implemented during the years 1998-2001.

The Environmental Health Committee charted the state of the Finnish environmental health, its key problems, and actions required for its improvement (Environmental Health Committee 1997). The committee divided the key actions for environmental health into three categories:

1. Segments of environmental health within which the achieved high standard should be maintained:
 - Quality of drinking water
 - Safety and healthiness of food
 - Radiation safety
2. Environmental health hazards the management of which requires significant further action:
 - Indoor air quality
 - Urban air quality
 - Noise hazards
 - Accidents and disasters
 - Mental and social health risks of the environment
3. Other promotion of environmental health
 - Prevention of the climate change and ozone depletion
 - Integration of health-promoting factors into community planning and building
 - Participation of citizens in promotion of a healthy living environments
 - Research and product development to promote environmental health.

These lists were in mind when examples of research themes of the programme were listed.

2 OBJECTIVES OF SYTTY

The objectives of SYTTY were:

- **to generate information for the assessment of connections between the environment and human health and**
- **to develop procedures, methods and techniques for the promotion of environmental health.**

Further aims of the programme were:

- to advance multidisciplinary approach in environmental health research,
- to enhance cooperation among research teams,
- to promote research training in environmental health, and
- to raise the quality of environmental health research in Finland.

Some examples of research themes were listed, even though also other research areas within the definition of environmental health were possible to fund. They were

- methods of assessment and management of environmental health risks (e.g. impact mechanisms and joint effects as well as transport, conversion, accumulation of chemicals)
- health impacts of indoor air, the living environment and the community structure (e.g. traffic and its emissions; structure and functioning of the community)
- exposure through food and drink, and their health impacts
- health impacts of environmental changes and nature in Finland (e.g. contaminated soils and sediments; problems with water supply; depletion of ozone layer)

3 LAUNCHING THE PROGRAMME

Environmental health was a multidisciplinary and interdisciplinary research programme. Thus, all four research councils of the Academy of Finland participated the programme (Research Council for Health, Research Council for Culture and Society, Research Council for Biosciences and Environment, and Research Council for Natural Sciences and Engineering). The other funding agencies participating the programme were the Technology Development Agency (Tekes), Finnish Work Environment Fund, Ministry of the Environment, Ministry of the Transport and Communications, and Ministry of Agriculture and Forestry. The programme was coordinated by the Academy of Finland.

The appropriations under the programme were open for applications in two stages. The first application stage, for which short plans of intent (2-3 pages) were requested, ended on 30 September 1997. 175 applications were submitted comprising the total amount of € 39 million. The programme committee, nominated by the board of the Academy of Finland and consisting of the representatives of the participating funding agencies, selected 86 projects for the second stage. (The chairman of the committee was prof. Jussi Huttunen, Annex 1) These projects were asked for detailed research plans by 1 December 1997. The total amount applied was € 15 million. The applications were evaluated by an international panel, which consisted of experts in the various fields of environmental health (Annex 3).

The section of the programme committee consisting of research council members of the Academy decided to finance 29 projects on 23 February 1998. (The chairperson of the committee was prof. Hilikka Riihimäki, Annex 1) Additional funding was appointed by the other funding agencies. The total number of financed projects was 46. The total SYTTY funding was € 8,3 million (Figure 1). The funding period began on 1 May 1998 and ended 31 December 2001. SYTTY funded 202 person-years. The distribution between female/male was 58/42 %.

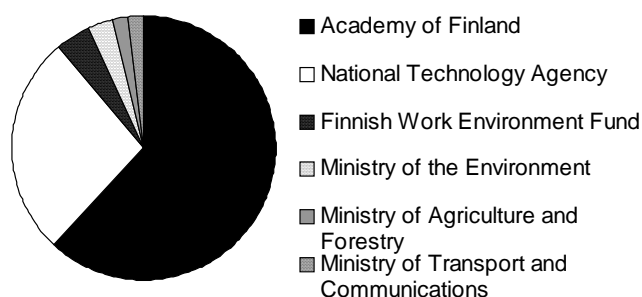


Figure 1. SYTTY funding in 1998-2001. The total budget was € 8,3 million.

SYTTY had four priority topics, in which also consortia of several related projects were formed (Figure 2).

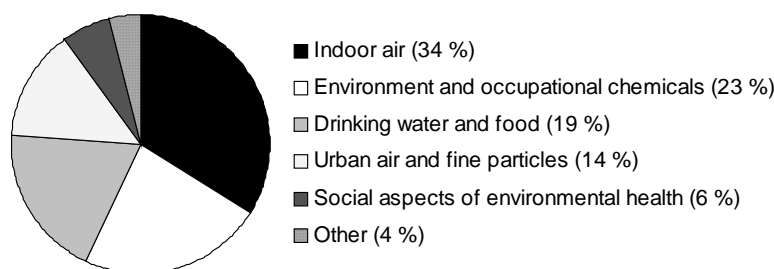


Figure 2. Distribution of SYTTY funding to the theme areas.

4 COORDINATION

The coordination contract between the Academy of Finland and the National Public Health Institute and the University of Kuopio was signed on 4 November 1997. The responsible coordinator of the programme was professor **Jouko Tuomisto** (National Public Health Institute and the University of Kuopio; 20 % of working time), the executive coordinator was PhD **Soile Juuti** (100 %) and the secretary was Mrs. **Heli Leinonen** (100 %). The coordination office was set up at the National Public Health Institute, Division on Environmental Health, Kuopio. The coordination was funded by the Academy of Finland. In addition, The Finnish Work Environment Fund supported the activities of the programme through the coordination.

The aims of the coordination included scientific and administrative tasks. The aims were to

- arrange the meetings of the steering committee
- collect annual and final reports from the projects
- promote cooperation among the research teams and between other research programmes
- keep contacts between the researchers and the financiers and the authorities
- distribute information to the projects about other financing sources
- report actively about the results obtained in the programme nationally and internationally (mainly by www-pages)
- promote scientific education in this field
- create national and international contacts
- arrange the final evaluation of the programme
- ensure that the aims of the research programme will be achieved

As the programme was launched there were no guidelines and only few practical experiences on coordination work. Therefore many of the practices were created, with the support of the responsible scientific secretary (Tellervo Raijas) and on-going projects of the Academy. The joint meetings of the programme coordinators of the Academy of Finland (5 meetings in 1998-2001) turned out to be useful in exchanging experiences on central issues of coordination.

In addition, the coordinator (SJ) participated a meeting series of a group of programme coordinators on human - environment - technology (6 meetings in 1998-1999). The aims of these meetings were to exchange information and create contacts between several research programmes in the area. One concrete result was that the group arranged jointly a seminar on "*Human-environment-technology - National innovation system*" in March 1999 in Helsinki.

The participating programmes were:

Biodiversity (FIBRE), Finnish Global Change Research Programme (FIGARE), The Finnish Forest Cluster Programme

(Wood Wisdom), Environmental Cluster Research Programme, Water Services and Technologies 2001 -technology programme, MOBILE-technology programme, Healthy Building -technology programme, Research Programme on Energy Conservation Decisions and Behavior (LINKKI 2), Environmentally Friendly Urban Form and Transport System (LYYLI). In addition representatives from the Tekes and Maj and Tor Nessling's foundation participated the meetings.

5 STEERING GROUP

SYTTY had a steering group consisting of the representatives of the funding agencies of the programme. Composition of the group changed twice during 1997-2002 due to the 3-year period of the Academy council members (Annex 1). The steering groups had altogether 10 meetings during 1998-2002. The coordinator (SJ) has served as the presenting official and the secretary of the meetings. The main issues dealt with at the meetings were evaluation (midterm/final evaluation) and communication of information. The group was regularly informed of the activities of the programme.

The steering group had a supportive role to SYTTY. In general, the group meetings were an important bridge between the researchers and the funding agencies in information exchange. The steering group provided some new insight to coordinators. The fact that part of the members changed twice during the programme decreased the importance of the group to the programme functioning, however. It also decreased the commitment of some group members to the programme.

Direct contact with the responsible scientific secretary at the Academy of Finland was an important means of solving various administrative problems.

6 ANNUAL REPORTING, EVALUATION

Coordination collected annual reports from all projects (in 1998, 1999, 2000 and 2001). As there were no detailed guidelines for annual reporting a modified version of the Academy of Finland research report form was created. The final report of the year 2001 included information of the whole funding period of 1998-2001. The reports of 1999 and 2001 included extended abstracts of the results and a self-evaluation (Annex 2). Self-evaluation was a good way of reflecting the satisfaction of the projects, and to develop the work of coordination. The other two reports (in 1998 and 2000) consisted of 'technical data' of the projects for the follow-up of the programme. Summary of programme (activities, funding, person months etc) was presented yearly based on annual reports.

As there were several funding agencies in SYTTY and all of them had their own rules, overlapping in reporting could not be avoided.

There was a *light* mid-term evaluation of the projects: The annual reports of the year 1999 were sent to the members of the international evaluation panel for comments. These comments were sent to the principal investigators of each project, and also discussed in the steering group meeting.

Final evaluation of the scientific level of the programme was done by an expert group representing fields of environmental health (Annex 3). The societal relevance and impact was evaluated by a national panel which consisted of representatives of different acting bodies in this field (Annex 3).

7 SEMINARS AND CONFERENCES

The coordination has organized or actively contributed to organizing of several seminars and conferences designed for the scientific community and for end-users.

7.1. Events within the whole SYTTY

SYTTY has arranged three programme symposia, which have served as occasions to screen the work of the projects, but also as a forum to meet other researchers. Almost all projects participated in these meetings. The symposia consisted of presentations of the projects either orally or as posters.

Doctoral students had a central role in presenting the projects. All SYTTY-researchers and all those interested in the field were actively invited to these symposiums. There were over 100 participants in all of these events. International evaluators of SYTTY participated the second and the third programme symposia.

- 25-26.8.1998 SYTTY 1: Opening symposium of SYTTY (in Kuopio)
- 29-30.3.2000 SYTTY 2: Mid-term symposium of SYTTY (Helsinki)
- 29-30.5.2002 SYTTY 3: Final symposium of SYTTY (Kuopio)

SYTTY has advanced scientific education of doctoral students by means of arranging an international *Gordon-conference* -type meeting annually. Doctoral students, their tutors and established international scientists were invited together for several days to a remote location. Each conference had five sessions. The topics of the sessions were in accordance with the themes of SYTTY, and were focused differently each year. Doctoral students also had a possibility to present their results (orally or as posters) and obtain constructive comments to their work. There were 60-70 participants in each conference, about half of them were doctoral students. In addition to the international invited speakers (Annex 6), some of the participants (doctoral students) came from abroad as well. In 1998 and 1999 the conference was organised in collaboration with the Environment-Health-Society -programme of the University of Kuopio, and in 2000 in collaboration with the Graduate School in Environmental Science and Technology.

- 19-22.11.1998 2nd Valamo Conference on Environmental Health and Risk Assessment
- 29.9.-2.10.1999 3rd Valamo Conference on Environmental Health and Risk Assessment
- 13-16.9.2000 4th Valamo Conference on Environmental Health and Risk Assessment
- 10-12.10.2001 5th Valamo Conference on Environmental Health and Risk Assessment

SYTTY organised seminars for end users of knowledge (e.g. state and community authorities). These events were useful in disseminating information from the scientific community into practice.

- 9.5.2000 The present state of the environmental health in Finland - SYTTY-results to decision makers (Helsinki)
- 22.3.2000 SYTTY workshop on indoor air. (Held as a part of the annual National Seminar on Indoor Air) (Helsinki)
- 16-17.5.2000 XXI National seminar on environmental health - Results of SYTTY* (Kuopio)
- 22-23.5.2001 XXII National seminar on environmental health - Results of SYTTY* (Kuopio)
**in co-operation with the Centre of Training and Development of the University of Kuopio*

7.2. Events within consortia

The projects of consortia in SYTTY were independent but shared common interests with varying depth. All five consortia had regular meetings, where all projects in each consortium participated.

7.2.1 Consortium: Moisture, mould and health (7 projects)

The consortium organised seminars twice a year (in English), where doctoral students presented their research and results. International speakers were invited to some of these seminars. In addition, the consortium organised two workshops in close co-operation with the Danish research programme on Moisture in Buildings. The first workshop was held in Denmark and the second one in Finland. The latter event was open to all interested and invitations were sent broadly.

- 27.4.1998 Moisture, mould and health -consortium seminar
- 26.10.1998 Moisture, mould and health -consortium seminar
- 26.4.1999 Moisture, mould and health -consortium seminar (*Internat. speaker*)
- 5.10.1999 Moisture, mould and health -consortium seminar
- 7-8.10.1999 Danish-Finnish workshop on Moulds in Buildings, Denmark
- 13.12.2000 Moisture, mould and health -consortium seminar (*Internat. speaker*)
- 15-16.5.2001 2nd Finnish-Danish workshop on Moulds in Buildings, Finland
- 13.12.2001 Moisture, mould and health -consortium seminar

The board of the consortium, which consisted of the principal investigators and researchers of the projects, had 11 meetings during 1998-2001. There was true collaboration within the consortium: the projects used the same research targets and cross-used the results. Thus, real synergy was obtained.

7.2.2 Consortium: Urban air particles and environmental health (6 projects)

The consortium had three meetings. The consortium also implemented jointly a doctoral course on fine particles and their health effects. The aim was to distribute the latest knowledge not only among the doctoral students but among the senior scientists as well. In addition, the researchers had several informal collaborative meetings.

- 1-3.7.1998 PM consortium symposium (*Internat. speaker*)
- 30.8.1999 PM consortium seminar
- 6-11.11.2000 Advanced course: Fine particles and their health effects (Doctoral course on fine particles. Held in English)
- 30.8.2001 Fine particle (PM_{2.5}) sources in the capital area -workshop

7.2.3 Consortium: Environmental health risk of dioxins (6 projects)

The consortium had two meetings, where the projects and the results were presented. Doctoral students had opportunities to present their results. International speaker was invited in the latter seminar.

- 18.11.1999 Environmental health risk of dioxins -consortium seminar
- 30.5.2001 Environmental health risk of dioxins -consortium seminar (*Internat. speaker*)

7.2.4 Consortium: Drinking water and health (3 projects), and Consortium: Microbial risks of drinking water contaminated with protozoans, viruses and cyanobacterial toxins (3 projects)

The consortium *Drinking water and health* had one meeting during the first year of SYTTY. Thereafter the two consortia on drinking water had joint meetings. SYTTY co-operated with *the Water Services and Technologies 2001* - technology programme of Tekes. The coordinator of SYTTY presented the SYTTY projects in their annual seminar in 2000. The programmes organised jointly a national seminar on drinking water in 2001. International speakers were invited in three of these water seminars.

- 10.11.1998 Drinking water and health - research consortium seminar
- 4.11.1999 Drinking water research in SYTTY -seminar (*Internat. speaker*)
- (13-16.9.2000 *4th Valamo Conference on Environmental Health and Risk Assessment*) (*Internat. speaker*) (*drinking water was the main theme of the Valamo conference in 2000*)
- 11.9.2001 Drinkable water from tap -seminar (in co-operation with *Water Services and Technologies 2001* - technology programme (*Internat. speaker*))

7.2.5 Other seminars within SYTTY

SYTTY participated in funding of seminars of two large projects.

- 6.11.1998 Food associated listeriosis, yersinosis and botulism -seminar
- 7-8.12.2000 Health, environment and social change -seminar
- 23.1.2001 Food associated listeriosis, yersinosis and botulism -seminar

8 DISSEMINATING OF INFORMATION

a) **www.ktl.fi/sytty**: The web-pages of SYTTY were opened in the middle of May 1998, just after the programme funding period started. Www-pages were updated regularly (weekly-biweekly) by the coordinator. The pages were in English with some exceptions (e.g. information on seminars that were held in Finnish). The pages presented general information of the programme, list of projects, abstracts of projects (updated twice during the programme), information on programme events, addresses to all researchers, register of researchers, own page for media (press releases and articles of SYTTY) and a list of dissertations. Web-pages served as an important source of information for those inside the programme and those outside of it. There were about 400 monthly visits on the pages (Figure 3).

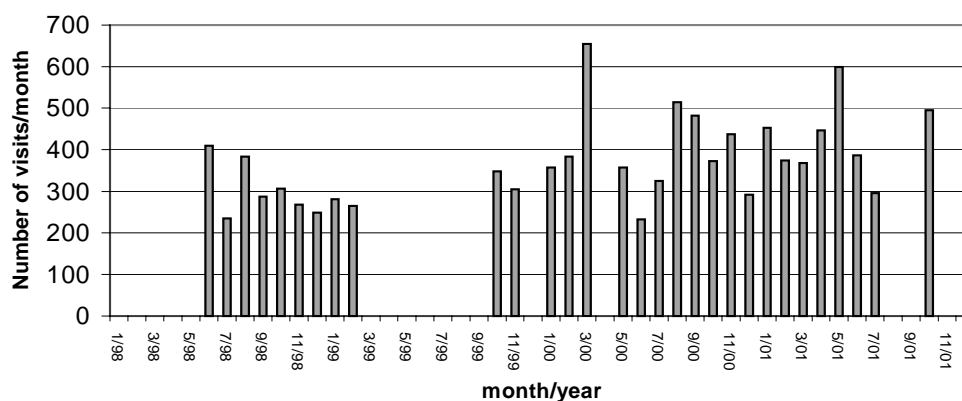


Figure 3. Number of monthly visits on www-pages of SYTTY (www.ktl.fi/syttty).

b) **E-mail list.** An e-mail list was created, and included of all those, whose name appeared on the project application or the project reports. Also, other persons who were willing to join the list were included. Altogether there were over 300 persons on the list. Current and relevant news on other funding sources (national, EU), on seminars, conferences, doctoral courses and administrative information on reporting etc. were sent (Table 1). In addition, a list of the responsible leaders (including the responsible researchers) of projects was created. E-mail list was an effective way of disseminating information inside the programme.

Table 1. Messages sent by SYTTY coordination on the SYTTY e-mail list.

Theme	1999	2000	2001
General (e.g. funding, reporting)	9	24	33
EU	9	16	15
Seminars, conferences	12	12	22
Courses	3	4	2
	33	56	72

c) **Brochures.** A brochure on SYTTY was prepared in 1998 in English and in Finnish. The separate list of projects including information of the programme was updated in 2000. The brochure was distributed to projects, widely to the scientific community and to end users e.g. during various events in the field of environmental health. It was also distributed abroad. A poster of SYTTY in both languages, envelopes and letter papers with SYTTY-logo and -style were also prepared.

d) **Publication series of SYTTY.** SYTTY had an own publication series, *Publications of The Finnish Research Programme on Environmental Health, SYTTY* (ISSN 1456-1654). Four proceedings books have been published under it: Abstracts of all projects were published at the time of the opening symposium (1/1998), the mid-term symposium (1/2000) and the closing symposium (1/2002) of the programme. The books were distributed at the symposia, but also sent to authorities and other key persons in Finland and abroad. The same information was available on the www-pages of SYTTY. In addition, proceedings of the Workshop on Moulds in Buildings (1/2001) was published in the series.

e) **Oral and written presentations.** The coordinators kept oral presentations and presented written abstracts on SYTTY programme in scientific meetings and journals aimed for end users of knowledge (Annex 4). The coordinator participated in several seminars on environmental health issues annually.

f) **Press releases.** The coordinators produced 13 press releases and had 8 press conferences on current issues and new results of SYTTY (Annex 4). The information was distributed widely to media.

Two of the press releases were distributed also internationally. Several newspaper articles, radio and TV shots have appeared. Coordinators worked in co-operation with the personnel of the information centres of the Academy and Tekes.

9 PUBLICATIONS

On the initiatives of the SYTTY coordination, several SYTTY supplements or theme-issues were published in national and international journals. These journals are effective means of disseminating scientific results to decision makers and end users.

- Indoor air News (Sisäilmautiset): SYTTY-number (3/2001), 7 articles on SYTTY projects; 10000 copies
- Environment and Health -journal (Ympäristö ja Terveys -lehti): SYTTY-number (6/2000); 5 articles of SYTTY-projects; 3000 copies
- Environment and Health -journal (Ympäristö ja Terveys -lehti): SYTTY-number (7-8/2001); 7 articles of SYTTY-projects; 3000 copies
- Environment and Health -journal (Ympäristö ja Terveys -lehti): SYTTY-supplement; up-to-date reviews on five central topics of environmental health (indoor air, fine particles, drinking water, chemicals, food); available in the end of 2002); 3500 copies
- Scandinavian Journal of Work Environment and Health: SYTTY supplement on 11 articles on fine particles (available in the end of 2002)

In addition, a theme issue on environmental health was published in the Journal on Public Health (Kansanterveyslehti) (2/2002); 10000 copies.

SYTTY projects have published 188 original peer-review articles in international scientific journals by the end of the programme (1/2002). Publication will, however, continue for several years.

10 DOCTORAL TRAINING

Doctoral training was emphasised in most of the SYTTY activities. E.g. doctoral students were given possibilities to present their projects and their results in most of SYTTY events - which they also did. For educational reasons, most of the seminars were held in English. Doctoral students were encouraged to act as chairpersons of sessions during the seminars. The annual Valamo conference was an important educational event for the doctoral students.

10.1 COURSES

Simultaneously with SYTTY, there was a *Programme on Environment, Health and Society (YTY)* at the University of Kuopio in 1997-2000. It was funded by the University of Kuopio (with the funding of Ministry of Education). The governmental research institutes at the campus area, namely National Public Health Institute and the Occupational Health Institute, also participated actively in the programme. The aim of the YTY was to support the doctoral training and multidisciplinary research in the field of environment and health at the University of Kuopio campus area.

YTY arranged or funded 35 doctoral courses during 1998-2000 at the University of Kuopio. There were over 1000 participations on the courses, and the students gained over 1000 credit weeks. 70 % of the courses were held in English, and 28 % of them had international expert teacher (Annex 5). In addition, YTY gave grants for finishing doctoral thesis. The total of 25 doctoral students gained grants each for 3-4 months.

The leader of YTY was prof. *Jouko Tuomisto* and the coordinator PhD *Soile Juuti*. The parallel coordination of SYTTY and YTY provided a significant added-value to both programmes: SYTTY provided the research funding, whereas YTY contributed with educational activities to the common goal of advancing environmental health research.

10.2 DEGREES

There were 16 fully funded (for ≥ 3 years) and 36 partially funded (for 1-3 years) doctoral students in the 46 SYTTY projects. In addition, 84 doctoral students were funded for less than a year with SYTTY funding. 11 doctoral dissertations were finished until the end of 2001. A high number of doctoral dissertations will be completed later in the year 2002 and in the early 2003. This is due to the fact that the time period of three years is too short to finish a doctoral thesis.

Two licenciate degrees and 14 master's degrees were finished in SYTTY projects during 1999-2001.

10.3 GRADUATE SCHOOL

The educational experiences obtained during YTY (*University of Kuopio Programme on Environment, Health and Society*) and the scientific collaboration created during SYTTY were the basis for the success of the application for the *Graduate school in Environmental Health*. The application was sent to the Academy of Finland in March 2001 for scientific evaluation, and accepted by the Ministry of Education in July 2001. Five doctoral student positions were funded for four years in 2002-2005. The graduate school started in the beginning of year 2002. The Graduate school is an important continuation to the SYTTY programme. The second application, for the enlargement of the school by further 35 positions, was prepared and sent in February 2002. Decisions will be due in June 2002.

11 INTERNATIONAL CONTACTS

International contacts have been a central part of many of the SYTTY activities. E.g. international scientists were invited to the symposia of SYTTY as speakers and as participants. A list of invited foreign speakers in SYTTY events is presented in Annex 6. SYTTY arranged workshops jointly with the Danish programme (Moulds in Buildings). In general, the scientists of SYTTY have participated actively in international meetings.

Coordinator (SJ) has acted since 1998 as a key action contact person on environment and health in Finland, at the Quality of life and management of living resources (LIFE) of the EU 5. Framework programme. Projects have regularly been given fresh and current information of the calls and decisions of funding. This has helped especially those who have applied funding from the EU-programme.

SYTTY-projects have been successful in receiving EU-funding: One of the SYTTY researchers and the programme director of SYTTY are coordinators and 11 as partners (in 8 different projects) in the EU-funded shared cost projects of the LIFE programme. All of these funding decisions were made during 2000-2001, which reflects the impact of the work done in the SYTTY projects.

12 CONCLUDING NOTES

In this report only the work of the SYTTY coordination has been described. In addition, the researchers of the projects have contributed significantly to the activities within the topic of the research programme.

The **coordination** had a 3-step structure, i.e. an established professor, a postdoctoral person and a secretary. This was an extremely successful and well-functioning structure and can be recommended for other research programmes to come as well. Collaboration of the funding agencies was fairly new at the time of SYTTY was launched. Thus, new practices were implemented. Even though this funding collaboration caused extra work to the coordination as well as to the researchers (e.g. with overlapping reporting), it was very important for the programme due to the expansion of it's contents into many fields.

Based on the self-evaluation of the projects, the role of the coordination was considered the most successful in providing information, organising seminars and supporting networking between

researchers and projects. Especially, the information on EU programmes was found useful among the researchers. There was a significant difference in satisfaction to the coordination between the projects that were part of the consortia and those that were not. Especially, the support on networking and the seminars were considered more successful among the consortia projects.

In general, the **selection of the projects** to the programme was successful. Most of the projects were of high quality giving valuable new scientific results. This high quality is proved by the high number of publications in international journals, several doctoral degrees (to come in 2002), and the success of the projects in the EU-calls (continuation to the SYTTY-projects). However, there were a few projects, whose results remained fairly weak. There were no obvious explanations for the latter. The varying stage of the academic experience may, however, explain part of it.

The **multidisciplinarity** of the programme was ensured already at the time of funding decisions. Several of the projects had multidisciplinary collaboration within the project itself. In addition, the consortia of SYTTY enhanced the multidisciplinary scope of the programme. Based on the self-evaluation, SYTTY contributed to multidisciplinary within the project or between projects to a great degree (40 % of the projects) or to some extent (48 % of the projects). The multidisciplinary of non-consortia projects was clearly weaker than the consortia projects. The three joint SYTTY seminars were arranged without parallel sessions, in order to increase knowledge of the researchers on the various research fields of environmental health.

The **consortia meetings** and the joint meetings within thematic areas were useful occasions for exchanging information and presenting results. Based on self-evaluation, SYTTY enhanced collaboration to a great degree (63 % of the projects) or to some extent (33 %) among the research teams that were part of the consortia. Collaboration among the non-consortia projects was clearly weaker (17 % and 67 %). It was evident that those projects that belong to consortia benefited from the programme most; consortia gave real synergy. Some of the projects that were outside of the consortia and the main theme areas of SYTTY felt that the connection to SYTTY was fairly weak. Therefore, it would be important that at the time of the funding decisions, in addition to the relevance and the scientific quality of the projects are evaluated, also the suitability of all projects to the programme would be considered as a whole.

The **researchers of SYTTY committed** themselves well to the programme. They participated actively in all events that were organised within SYTTY. 70 % of the consortia projects but only 17 % of the non-consortia projects considered these events very useful to them. (The rest of the groups found the events useful to some extent.) Again - this result reflects the important role of the consortia. The researchers were eager to present their results also in various events organised by others in this field. They were also willing to participate in writing articles in the SYTTY-theme-numbers and supplements on national and international journals. Despite the overlapping reporting rules of the various SYTTY funding agencies, all projects returned the requested annual and final reports.

SYTTY has given a significant boost to the **doctoral training** in environmental health. Before SYTTY (and YTY) some separate courses were given in a few universities. SYTTY and YTY have established the training and been essential for the start of the graduate school in this field. *The Graduate School in Environmental Health* assures that there will be continuation to this scientific education also in the future.

The programme has asserted and strengthened the **research field of environmental health** in Finland. The quality of research has risen. These have boosted the researchers to success in further funding calls as well. The many EU-projects expand the research further into international level.

The **future** of the environmental health research looks fairly promising, even though the many theme areas of research will be scattered widely. Several of the SYTTY projects will be continued with EU funding. The Health Promotion Research Programme (TERVE) of the Academy of Finland funds continuation of two of the SYTTY-projects. Several projects have applied funding from the Tekes technology programme on Fine particles - Technology, Environment and Health, and will apply from

the forthcoming Microbes and Man -programme of the Academy in 2002. In addition, projects will be applying project funding from the Academy of Finland, Tekes, foundations and other funding sources according their normal procedures.

In conclusion, the results of the self-evaluation of the projects and the experience of the coordinators during the course of SYTTY show clearly, that consortia structure of a programme will allow gaining real added value from a research programme. Projects that share the same interests and work among the same basic problem are motivated in collaboration.

STEERING GROUPS OF SYTTY IN 1997-2002

1997

Jussi Huttunen, Academy of Finland (chairman)
 Lea Kauppi, Academy of Finland
 Mikko Nikinmaa, Academy of Finland
 Jorma Tikkanen, Ministry of Social Affairs and Health
 Heikki Hämäläinen, Academy of Finland???
 Maaria Rautavirta, Ministry of Transport and Communications
 Heikki Uusi-Honko, Tekes
 Jaana Husu-Kallio, Ministry of Agriculture and Forestry
 Hannele Nyroos, Ministry of the Environment
 Riitta-Liisa Lappeteläinen, The Finnish Work Environment Fund
 Tellervo Raijas, Academy of Finland (responsible scientific secretary of SYTTY)
 Sipo Vanhanen, Academy of Finland
 Eeva Ikonen, Academy of Finland
 Jaana Roos, Academy of Finland

1998-2000

Hilkka Riihimäki, Academy of Finland (chairperson)
 Lars-Axel Lindberg, Academy of Finland
 Marianne Nyström, Academy of Finland
 Hannu Uusitalo, Academy of Finland
 Pertti Panula, Academy of Finland
 Raisa Valli, Ministry of Transport and Communications
 Jaana Husu-Kallio, Ministry of Agriculture and Forestry
 Riitta-Liisa Lappeteläinen, The Finnish Work Environmental Fund
 Heikki Uusi-Honko/Ilmari Absetz, Tekes
 Hannele Nyroos, Ministry of the Environment
 Tellervo Raijas, Academy of Finland (responsible scientific secretary of SYTTY)
 Maaria Lehtinen, Academy of Finland
 Annamajja Lehvo, Academy of Finland
 Marja Laaksonen, Academy of Finland

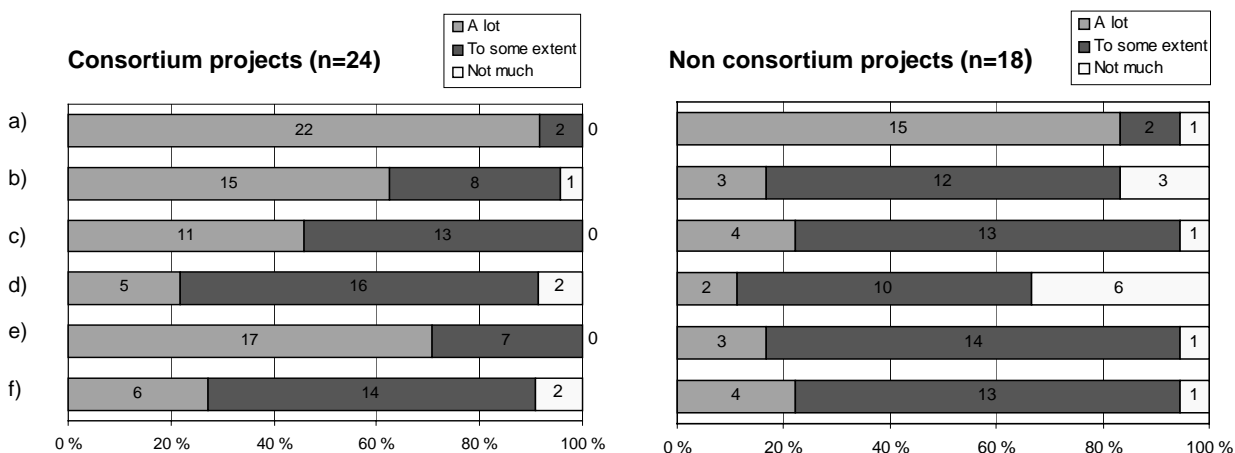
2001-2002

Lars-Axel Lindberg, Academy of Finland (chairman)
 Annele Hatakka, Academy of Finland
 Kaija Heikkinen, Academy of Finland
 Riitta Keiski, Academy of Finland
 Eero Vuorio, Academy of Finland
 Ilmari Absetz, Tekes
 Hilkka Riihimäki, Occupational Health Institute
 Riitta-Liisa Lappeteläinen, The Finnish Work Environmental Fund
 Risto Saari, Ministry of Transport and Communications
 Jaana Husu-Kallio, Ministry of Agriculture and Forestry
 Hannele Nyroos, Ministry of the Environment
 Tellervo Raijas, Academy of Finland (responsible scientific secretary of SYTTY)
 Maria Lehtinen, Academy of Finland
 Annamajja Lehvo, Academy of Finland
 Maija-Liisa Toikka, Academy of Finland

MAIN RESULTS OF THE SELF-EVALUATION in 2001

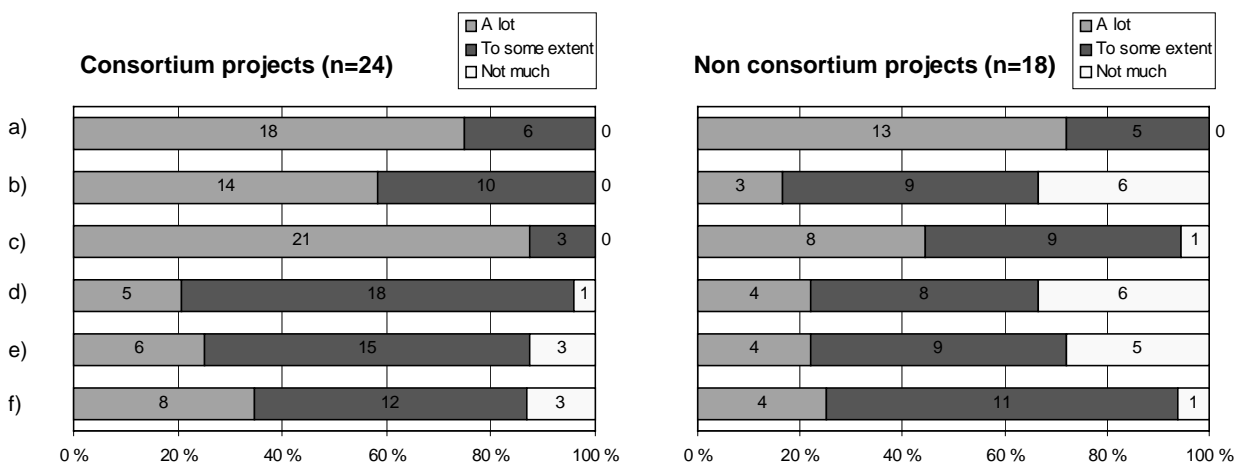
To what extent has your project benefited from being a part of SYTTY?

- a) The programme has provided a significant part of the funding
- b) The programme has enabled collaboration
- c) The programme has promoted exchange of knowledge
- d) Our project has been able to recruit new/more doctoral students
- e) Our project has participated in the programme seminars and found them useful and interesting
- f) The e-mail list and www-pages have been important sources of information



What is your opinion of the coordination of the programme? Has it been successful

- a) in providing information (e-mail list, www-pages)
- b) supporting networking between researchers and projects
- c) organizing seminars
- d) supporting national and international contacts
- e) producing material
- f) giving advice and support



INTERNATIONAL EVALUATION PANELS IN 1997 AND 2002**1998**

Prof. Helmut Greim, GSF-Institute for Toxicology, Germany (chair)
Dr. Charlotte Braun-Fahrländer, Institut für Sozial- und Präventivmedizin der Universität Basel, Switzerland
Dr. Erik Lebret, RIVM, Bilthoven, The Netherlands
Dr. S. Dusko Ehrlich, INRA-CRJ, Departement de Microbiologie, INRA, France
Prof. Lars-Göran Nilsson, Department of Psychology, Stockholm University, Sweden

2002

Prof. Helmut Greim, GSF-Institute for Toxicology, Germany (chair)
Prof. Bert Seifert, Umweltbundesamt, Germany
Prof. Göran Pershagen, Karolinska Institutet, Sweden
Dr. Gert Spaargaren, Wageningen Agricultural University, The Netherlands
Prof. Pirjo Mäkelä, National Public Health Institute, Finland

NATIONAL EVALUATION PANEL IN 2002

Harri Vertio, Finnish Centre for Health Promotion (chair)
Lea Kauppi, The Finnish Environment Institute
Mikko Paunio, Ministry of Social Affairs and Health
Marjo-Riitta Hämäläinen, The City of Joensuu
Sakari Tola, Varma-Sampo
Markku Rantama, The Finnish Real Estate Federation

TITLES OF ARTICLES AND PRESS RELEASES

ARTICLES OF SYTTY

- SYTTY-Ympäristöterveyden tutkimusohjelma 1998-2001, Ilmansuojelu 4/98, ss. 2-3.
- SYTTY-Ympäristöterveyden tutkimusohjelma 1998-2001, Ympäristötekniikka, 4/1999, ss. 46-47.
- SYTTY-Ympäristöterveyden tutkimusohjelma 1998-2001, Ympäristö ja Terveys 5/99, ss. 59-61.
- SYTTY - Sytyke Suomen ympäristöterveyden tutkimukselle. Ympäristö ja Terveys 6/2000, s. 5-9.
- Ympäristöterveyystutkimuksen kehitys Suomessa ja muualla, Ympäristö ja Terveys 10/2000, s. 70-75.
- Finnish Research Programme on Environment and Health, Proceedings of the Healthy Buildings 6-9 August, 2000, Espoo, Finland.
- Ympäristöterveyden tutkimusohjelman sisäilmatuloksia, Sisäilmastoseminaari 22-23.3.2000, Espoo.
- Ympäristöterveyden tutkimusohjelman sisäilmatuloksia, Sisäilmastoseminaari 14-15.3.2001, Espoo.

PRESS RELEASES (in Finnish)

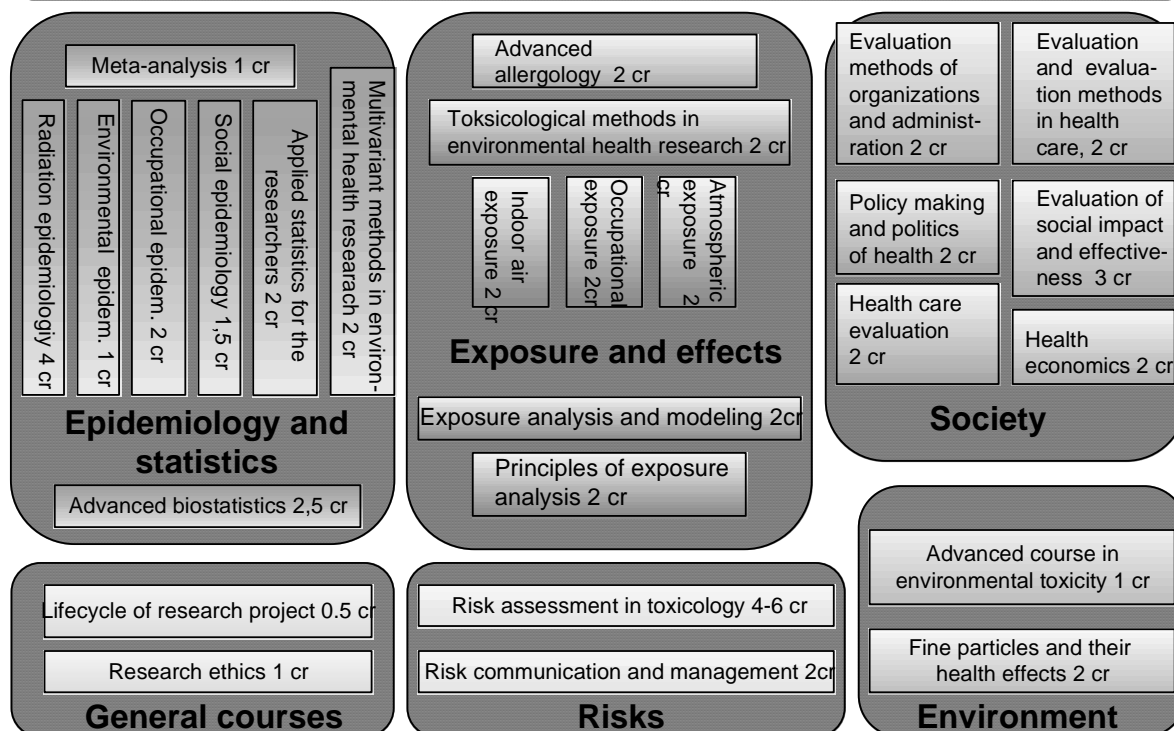
28.4.1998 Ympäristöterveyden tutkimukseen 47 miljoonaa markkaa
 25.8.1998 Ympäristöterveyden tutkijoita koolla Kuopiossa
 13.11.1998 Kaupunki-ilman pienhiukkaset terveystuho
 29.3.2000 Altistuminen homeille selville nenähuuhtelun avulla
 29.3.2000 UV-säteily voi heikentää elimistön puolustuskykyä
 9.5.2000 Radonitiivis perustus laiminlyöty - uusia ratkaisuja tutkitaan
 13.9.2000 Geenimuuntelu ja elintarvikkeet - onko riskejä?
 15.5.2001 Homeongelma huolestuttaa enemmän töissä kuin kotona
 30.5.2001 Suomalaismiesten lisääntymisterveys eurooppalaisittain huippuluokkaa
 11.9.2001 Vatsatauti-epidemioiden nostavat jäteveden mikrobipitoisuuksia
 11.9.2001 Suomalaisen juomaveden laadussa paljon vaihtelua
 10.10.2001 Tietämättömyys pienhiukkasten terveyshaitoista tulee yhteiskunnalle kalliiksi

PRESS RELEASES (in English)

29.3.2000 Scientific evidence on the adverse health effects of exposure to moulds
 29.3.2000 UV radiation may weaken the body's defence mechanisms

**ENVIRONMENT-HEALTH-SOCIETY -PROGRAMME OF THE UNIVERSITY OF KUOPIO
YTY**
YTY ENVIRONMENT-HEALTH-SOCIETY -PROGRAMME

COURSES FUNDED BY YTY at the University of Kuopio in 1998-2000

Valamo (Gordon) Conferences on Environmental Health and Risk Assessment


INVITED INTERNATIONAL SPEAKERS IN THE EVENTS ORGANISED BY SYTTY

Paul Lioy, Environmental and Occupational Health Sciences Institute, USA
 Paul Slovic, USA
 Brian Leaderer, Yale University School of Medicine, USA
 Richard Peterson, University of Wisconsin, USA
 Joel Schwartz, Environmental Epidemiology Program, USA
 Tom Hatfield, California State University, USA
 Caron Chess, Rutgers University, USA
 William Cain, University of California, USA
 Michael Luster, NIOHS, USA
 Karen Hammerstrom, U.S. Environmental Protection Agency, USA
 Tiina Reponen, University of Cincinnati, USA
 John Evans, Harvard Center for Risk Analysis, USA
 J.O. Falkinham III, Fralin Biotechnology Center, Virginia Polytechnic Institute and State University, Blacksburg, USA
 Fritz Krombach, Institut für Chirurgische Forschung, Germany
 Helmut Greim, GSF-Institute für Toxicologie, Germany
 Ulrich Ranft, Heinrich Heine University, Germany
 Marion Koopmans, National Institute of Public Health and the Environment, Netherlands
 Fons Stams, University of Wageningen, The Netherlands
 Leendert van Bree, National Institute of Public Health and the Environment, Netherlands
 Ellen Hoekstra, Centraalbureau voor Schimmelcultures, The Netherlands
 Dick Heederik, University Utrecht, The Netherlands
 Ree Meertens, Maastricht University, The Netherlands
 Iain Purchase, UK
 Bevan Moseley, UK
 Andrew G. Renwick, University of Southampton, UK
 William Keevil, Center of applied microbiological research, UK
 John Fawell, Warren Associates Ltd, UK
 Kristian Fog Nielsen, Technical University of Denmark
 Niels Skakkebaek, Rikshospitalet, Denmark
 Gunnar Damgråd Nielsen, National Institute of Occupational Health, Denmark
 Heimo Breiteneder, University of Vienna, Austria
 Stefan Wagner, Institute of General and Experimental Pathology, Austria
 Klea Katsouyanni, University of Athens, Greece
 Paola Parronchi, University of Florence, Italy
 Jean-Claude Block, Nancy University, France
 Hiroshi Ohshima, International Agency for Research on Cancer, France
 Albert Bosch, University of Barcelona, Spain
 Agneta Rannug, Karolinska Institut, Sweden