



# Evaluation of Sitra 2002

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## CONTENTS

PREAMBLE	5
1 INTRODUCTION	8
2 CORPORATE FUNDING	10
2.1 General	10
2.2 Financial, commercial and innovative success	11
2.3 Investments in foreign funds; foreign investors	13
2.4 Entrepreneurship	14
2.5 Conclusions and recommendations	14
3 STRATEGIC RESEARCH ACTIVITIES	16
3.1 General	16
3.2 Findings on selected research themes	17
3.3 Research processes	18
3.4 Diffusion and debate	19
3.5 Conclusions and recommendations	20
4 REVITALIZATION OF INDUSTRIES AND PREVENTION OF SOCIAL EXCLUSION	21
4.1 General	21
4.2 Findings of selected innovative projects	22
4.2.1 Learning regions project	22
4.2.2 Skills technology project	23
4.2.3 ISO INKE	24
4.2.4 eHealth	25
4.3 Conclusions and recommendations	25

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5 PLATFORMS FOR INTELLECTUAL DEVELOPMENT	27
5.1 General	27
5.2 Finland 2015	28
5.3 Economic Policy 2000+	29
5.4 Future aspects	30
6 ROLE AND POSITIONING OF SITRA WITHIN THE FINNISH INNOVATION SYSTEM	31
6.1 General	31
6.2 Agent of support for innovation	32
6.3 Agent of change in the innovation system	34
6.4 Intermediary	35
6.5 Conclusions and recommendations	35
7 FUTURE PLANS OF SITRA	36
7.1 General	36
7.2 Conclusions and recommendations	37
8 SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS	39
Literature	44
Appendix 1: Milestones in the history of Sitra	46
Appendix 2: Presentation of the members of the evaluation group	50
Appendix 3: Summary of the report on media analysis by Observer Finland Ltd.	52
Appendix 4: Summary of the report on research activities by Net Effect Ltd.	54
Appendix 5: List of interviewees	55

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# Preamble

The Finnish National Fund for Research and Development Sitra (Suomen itsenäisyyden juhlarahasto) was established in 1967 to celebrate the 50th anniversary of the Republic of Finland. Under the present Act on Sitra, its objective is to promote Finland's:

- stable and balanced development
- quantitative and qualitative economic growth
- international competitiveness and cooperation

by working especially for the implementation of projects that contribute to more effective use of economic resources or chart alternatives for future development.

During its close to 35 years of existence, Sitra's activities have expanded from the original task of financing technical research and development to cover a range of research, educational and venture capital activities that benefit the economy and the society at large. Administrative functions and governance practices have also been developed over the years. Sitra was originally associated with the Bank of Finland, but later gained a more independent status. The Supervisory Board includes the Parliamentary Trustees of the Bank of Finland appointed by the current Parliament. A list of milestones in Sitra's history is presented in Appendix 1.

The endowment capital is largely made up of publicly quoted equities whose appreciation has given Sitra wide scope to develop its activities. The Board of Directors therefore decided it was now time to evaluate Sitra as a whole. The core of the evaluation was summarized by the Board of Directors as follows:

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‘Does Sitra do:

- the right things
- in the right way?’

In summer 2001 the Board of Directors appointed an evaluation group consisting of the following members:

President and Director General Reijo Vihko, the Academy of Finland, Chairman

Professor Manuel Castells, University of California at Berkeley

Professor Luke Georghiou, PREST, University of Manchester

Academy Professor Sirpa Jalkanen, MediCity, University of Turku and National Public Health Institute

Professor Frieder Meyer-Krahmer, Fraunhofer Institute for Systems and Innovation Research (ISI), Vice-Chairman

Director Pirjo Vuokko, Institute for Executive Education at Turku School of Economics and Business Administration

Development Manager Mirja Gröhn from Sitra was appointed as secretary to the group. Brief presentations of the evaluators can be found in Appendix 2.

The evaluation group decided to ask PwC Corporate Finance to evaluate corporate funding activities, Observer Finland to analyse citations relating to Sitra in the media, and Net Effect to collect information from decision-makers on Sitra’s achievements in research activities. Summaries of the latter two studies are in Appendix 3 and Appendix 4. TTK-valmennus carried out a work community questionnaire.

The evaluation group held three 2-day meetings. The individual members of the group interviewed about one hundred people and the consultants of the group another one hundred, all of them relevant consumers or observers of Sitra’s activities. A list of interviewees can be found in Appendix 5. In addition to the six meeting days, the foreign evaluators and the chairman spent a few days on fact-finding missions to different regions of Finland. The evaluation group wishes to thank all those who contributed to this exercise.

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The different sections of the report were written by individual members of the group, and then thoroughly discussed and modified at group meetings and by electronic correspondence. The report was finalized in summer by the chairman and the secretary and finally approved by all the members of the group. The report will be delivered to the Board of Directors on 2 October 2002.

Helsinki, September 2002

*Reijo Vihko*  
Chairman of the evaluation group



The time of one year that we found necessary for the assignment to be completed clearly reflects the unique, and also rather complex, nature of Sitra. We can identify four main operational areas. We chose the terminology ourselves and prefer to use the following expressions:

- 1 corporate funding
- 2 strategic research activities
- 3 revitalization of industries and prevention of social exclusion
- 4 platforms for intellectual development.

The multitude of functions meant there was a need for a great deal of preparatory work by different consulting organizations. Moreover, the evaluation process was remarkably interactive, because we felt it very beneficial to discuss different topics with experts in Sitra and in the organizations producing background material. This iterative process also often led to joint conclusions by the evaluators and Sitra personnel. Therefore, some of our recommendations produced during the process are already visible in some of Sitra's present operational and activity plans.

It soon became clear that Sitra is a success story, and grounds for this conclusion will be found throughout this report. Several interviewees gave a great deal of the credit for the successful activities and operations to the present president of the organization. Accord-

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ing to a work community questionnaire, Sitra's personnel are also happy with the management.

However, some of the global developments were seen as likely to present new challenges for the strategy and operational principles adopted by Sitra. It also became known that a new president would assume office in summer 2004. Therefore, Sitra today is in a somewhat turbulent position: a major challenge for the organization is to find strategies for how to continue this success story in a rapidly changing environment and soon under new leadership. It is vital for the future of Sitra to become a global player and to find lasting international contacts in order to be able to monitor emerging opportunities and exert influence on a global scale.

The worldwide slowdown in economic growth concentrates minds on finding new opportunities for future developments in an increasingly tough economic environment. Sitra's corporate funding will face challenges from the general tightening in the availability of venture capital following a period when resources were readily available. The public funding on research and development (R&D) seems to halt at the level reached after the rapid growth during the latter half of the 1990s. In addition, problems such as decrease in population in certain regions of Finland and the ageing of the population come more into focus, as does the need for improved productivity in the public services. Among the consequences of globalization, pressures emerge for reforming the tax system. Moreover, development in the EU enlargement process opens up new vistas for future development. It is also noted that the developments in the EU may enhance Finland's opportunities to make use of its position on the EU's border with Russia.

### 2.1 GENERAL

In 1967 Sitra started out as the most important public funding agent for technical research and development. It made its first direct investment in an investee company in 1987. By the end of 2001 Sitra had invested a total of EUR 178 million in 224 companies during its entire investment history within corporate funding. Sitra's active investment portfolio consisted of 121 companies, with a further 13 companies in its 'passive' portfolio.

Since 1995, corporate funding has accounted for 81–96% of Sitra's funding decisions thus being overwhelmingly the major activity of the organization in economic terms (Figure). The rest, 11% on average, is shared by research, innovative operations and training activities (RIT). Looking at the respective share of personnel, out of the total of 89 persons, there were 32 in corporate funding and 24 in RIT in 2001. The rest 33 persons were in administrative or service functions.

Sitra's main activities in venture capital investments can be grouped as follows:

- direct equity investments in domestic investee companies
- investments in Finnish venture capital funds
- investments in international venture capital funds.

We have mainly focused on analysing Sitra's corporate funding operations from the point of view of three distinct topics: the financial,

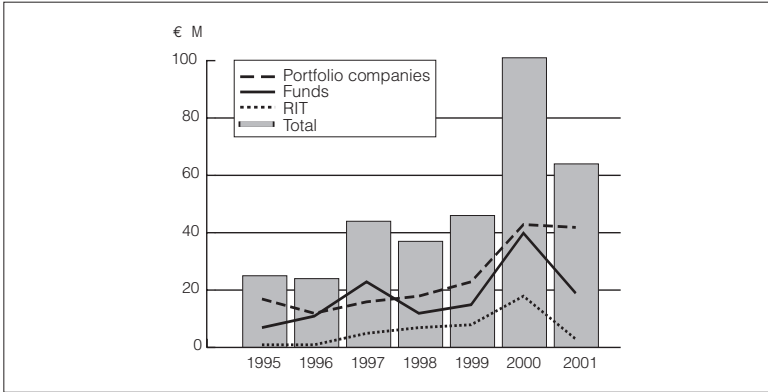


Figure. Sitra's funding decisions 1995–2001. Source: Sitra Annual Report 2001.

commercial and innovative success of the companies directly funded by Sitra; how well Sitra has succeeded in obtaining and handling its deal flow; and Sitra's role in the Finnish venture capital and private equity industry. PwC Corporate Finance carried out an analysis of Sitra's corporate funding operations for these purposes.

## 2.2 FINANCIAL, COMMERCIAL AND INNOVATIVE SUCCESS

Sitra has been relatively successful in its investments when compared internationally. Sitra's total internal rate of return (IRR) including all exits was 10.35% p.a. by the end of 2001 compared with 11.8% (at the end of 2000) for European private funds focusing on companies at the seed and start-up stages.

The financial analysis of Sitra's investment portfolio shows that the majority of investee companies cannot be considered successful by traditional measures of profitability. However, these do not take into account anything other than the financial situation of the companies. A more in-depth analysis of the representative sample of these technology companies revealed that they possess globally competitive state-of-the-art know-how and innovativeness.

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However, innovative success is of little consequence unless it can be turned into financial success through commercialization. Currently, the major bottlenecks in the innovative start-up companies in Sitra's investment portfolio are commercialization and financing problems and lack of professional management. The key personnel in these technology-based early-stage companies consist mainly of engineers and researchers. In contrast, adequate business management and marketing skills are not always represented. It is clear that Sitra currently has more companies per manager than other investors in the field. Sitra's capacity to take responsibility for the management of these companies is therefore limited. A venture capitalist might be expected to be more active in this respect. More management resources would however be a very high overhead cost for the small early-stage investments. On the other hand such help could be critical for the companies. It might be more appropriate for such help to come from incubators and their infrastructure, not from Sitra. Sitra could then focus on ensuring that the incubator infrastructure was functioning well in business and financial matters.

Sitra has gradually shifted the emphasis of its funding from growth-oriented enterprises to seed and preseed funding. Its current profile still remains somewhat unclear.

Sitra has a good reputation for being a reliable, safe and patient financier. This is true especially in those parts of the financing chain where there are very few other operators, e.g. in the 'valley of death' phase. A strong case can be made that in the field of corporate funding, too, Sitra's mission is to seek out and test new ideas, technologies and instruments. From this point of view, Sitra has been given an unusually independent and flexible framework for its mission, an atmosphere that is open-minded and ready to test new ideas.

Sitra has a very important role at early-stage funding. Collaboration with the National Technology Agency Tekes at very early-stage innovative company funding seems to be a field in which nobody else is interested and which is very much appreciated by researchers in different Finnish institutions. There is no doubt that Sitra's operation has resulted in a marked increase in the number of start-up companies in Finland.

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The seed capital share of total venture capital investments in Finland is the highest in the Nordic region and this can be largely attributed to Sitra and Sitra-controlled venture funds and joint activities with Tekes.

Economically tight times like today create difficulties for those companies which have passed the preseed and seed phases but do not yet have commercially exploitable products. At the same time, while Finland needs new start-up companies, there is a danger of losing promising already existing start-ups. Sitra should strongly increase its collaboration with other funding bodies globally to find potential partners. Currently, especially in fields like biotechnology and drug development, the research and development phases are very long, and financing of companies in these fields is a very demanding task for any investor. Sitra should intensify its cooperation at all levels in order to find promising early-stage companies, to contribute to their development, to be able to develop new instruments and to bring investors and companies together. We suggest that the operation of Sitra, as of any early stage financier, should be more customer-oriented than it seems to have been. We also stress that increased collaboration and discussions between the Finnish public (and possibly private) funding bodies might generate strategies which would result in improved financial, innovative and commercial successes.

Sitra should increase its visibility in corporate funding. According to the survey by Observer, there is room for quantitative improvement in media publicity in the field of corporate funding. Also PwC Corporate Finance observed that Sitra's collaborators actually knew very little about Sitra.

## 2.3 INVESTMENTS IN FOREIGN FUNDS; FOREIGN INVESTORS

Sitra has investments in several domestic and international funds. In addition to a good return on funds invested, the aim of these investments is to support Sitra's own corporate funding activities and create opportunities for networking. At the end of October 2001 Sitra had investment commitments in 34 international and 10 domestic

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funds. About one third of these investments were allocated to funds having Finland as their main investment territory. The rest were located in funds focusing on international fields.

The entrance of foreign investors in the Finnish market would be desirable not only for potentially bringing major capital investments to the country, but also to stimulate internationalization and globalization for Finnish corporate funding and business areas in general. We recommend that Sitra should actively find ways to attract foreign investors and foreign capital into the Finnish market. One mechanism is Sitra's equity investments in international venture capital funds, which provides an opportunity for Sitra to enhance the exposure of the Finnish companies to foreign investors.

## 2.4 ENTREPRENEURSHIP

Despite the problems of funding new companies, new active entrepreneurs are needed in numerous sectors in Finland. In the last few years, and especially in information technology (IT), health and biotechnology, new companies have been appearing. However, it is very likely that much more could be done to foster new commercial activities in the country.

It seems that entrepreneurship has not achieved the status of a desirable quality in Finnish society. It was also evident from the analysis carried out by PwC Corporate Finance that there is a clear need for managerial skills in Finnish start-up companies. We therefore recommend that, although Sitra is not an educational institution, it could catalyse activities in society leading to more positive attitudes towards entrepreneurship and also stimulate potential entrepreneurs to acquire more managerial skills.

## 2.5 CONCLUSIONS AND RECOMMENDATIONS

- The shift towards preseed funding filled an important gap in the Finnish innovation system. Moreover, Sitra's pioneering work in

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establishing private venture capital funds has been beneficial for more advanced firms. The increased emphasis on life sciences is supported, as this is a sector that needs patient capital. Work reinforcing knowledge transfer from universities to companies is also appreciated.

- Sitra is not viewed as a competitor by other Finnish investors. It has truly succeeded in creating a unique role in Finnish corporate funding. Sitra's good reputation as a safe and reliable partner has enabled it to exert a positive influence on other Finnish investors when making their investment decisions. However, Sitra cannot be considered successful in attracting sufficient *foreign venture capital investment* to Finland, and it should actively search for ways to improve the situation.
- Although Sitra's overall reputation is good and it has successfully boosted Finnish companies, there have also been some concerns about the efficacy of its decision-making. Many of the investee companies have wished for more involvement by Sitra in the *management* of their companies. Sitra should consider on the one hand the number of companies under each manager, and on the other the balance between the cost of management and the investment made in the company. Cooperation with incubators could be a good alternative here. When evaluating the most promising companies for its investment portfolio, the best possible experts in the field should be used if the appropriate expertise is not represented among Sitra's own personnel.
- We also strongly encourage Sitra to continue its efforts to *collaborate* with other actors in the field to reduce bureaucratic overlap as much as possible and create a functional network of investors to help finance promising companies. In this context, Sitra can act as a balancing force among Finnish investors, who dominate the field due to the lack of foreign investors.
- Sitra as a central financing body will have to take responsibility for fostering a new *entrepreneur-friendly culture* in Finland. Sitra is also in an excellent position to provide moral support to individual entrepreneurs.



### 3.1 GENERAL

In the last few years, Sitra has been showing increasing activity in the area of research. This evaluation is based on our analysis of research reports produced by Sitra in English, interviews carried out by Net Effect Ltd and ourselves, a study of media reports on Sitra's research, and Sitra's internal documents. Many of the evaluation group members have had the opportunity to personally observe Sitra's research seminars and programmes over many years.

In general terms, Sitra's mission is partly to assist Finnish decision-makers, and the public at large to make informed decisions on how to improve the economy and society of the country in the context of a changing world. Therefore, acquisition and diffusion of know-how are essential. Among the many variables that should be considered by Sitra in fulfilling its stated mission, as per the mandate of the Finnish Parliament, the following are worthy of mention here:

- to identify the critical know-how needed in Finland to further the wellbeing of the country
- to collect and systematize this know-how
- to generate key know-how that does not exist or is not available
- to achieve this, external resources are often needed and should be coordinated and programmed by Sitra
- to diffuse this know-how and generate debate in society at large.

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Sitra's strategic research activities are highly relevant if they meet one or several of the above-mentioned conditions. However, Sitra is not the only operator in the field of strategic research generation in Finland. Therefore, in the evaluation of Sitra's research activities, it is important to pay attention to other players in the field and to concentrate on essentials: what is really needed. In addition, networking nationally and internationally is a must for high-level research. In the case of Sitra, it is, however, imperative that its research activities are highly relevant to Finland. Sitra must constantly ensure it is fully informed on the latest research results in topical areas, and it should be able to identify developing areas which are important for its own and Finland's strategy.

### 3.2 FINDINGS ON SELECTED RESEARCH THEMES

The definition of what constitutes critical know-how has been successfully appreciated in Sitra's reports. Sitra's research programme refers to all the major issues confronted by the country in the 1990s and early 21st century, such as:

- the development of the information society
- the emergence of a network economy
- the conditions for an efficient national innovation system
- the place of Finland in the process of globalization
- the place of Finland in the changing European context.

In addition, the present agenda seems to be most relevant. It concerns the process of ageing, the new welfare state, multiculturalism, immigration policy, the importance of social values, social capital, the transformation of the family, changes in working life and the importance of expertise in economic growth. Although some other important trends could be mentioned, the plans follow most of the important trends visible today.

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### 3.3 RESEARCH PROCESSES

Many of the research reports published by Sitra are of high or reasonable quality. However, it may be that the effort of scanning available knowledge before engaging in new research programmes has not always been sufficient. Therefore, some publications remain superficial and have very little to give to Finland.

It is of course clear to everybody that research has to be free, independent, public – not confidential. At the same time, Sitra must supervise the process and interact with researchers to guarantee the generation of information and specific know-how on the topic for Finland. These two principles must be grasped without any sense of conflict between them. In this respect, our evaluation shows that Sitra's record is positive. There are excellent research reports that make Finland one of the best-studied information societies in the world. We dare say that some of these studies could be used in the best business schools in the world among the most innovative analyses relating to organizational transformation, innovation systems and economic competitiveness.

Three reports or studies appear to have epitomized the contribution of Sitra's research at critical moments of public policy in the last decade:

Sitra 149, Hannu Hernesniemi et al. (1996), *Advantage Finland – The Future of Finnish Industries*, which aimed to define the strategic industrial sectors able to induce greater competitiveness in the Finnish economy following the economic crisis of the early 1990s. The starting point was Michael Porter's cluster model, which proposed a growth strategy based on promoting high skills rather than low wages – this seems obvious today but was not at the time.

Sitra 211 (1998), *Quality of Life, Knowledge and Competitiveness. Premises and Objectives for the Strategic Development of the Finnish Information Society*, a comprehensive strategy for the development of the Finnish information society based on synthesis of a wide range of contributions and events. This compares well

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with documents in other countries on this topic. It captures all the essential elements of the information society in a short concise document. Of particular importance is the stress it gives to the understanding of the partnership between individuals, firms and public institutions in a manner which is both competitive and inclusive.

Sitra Reports Series 7, Gerd Schienstock and Timo Hämäläinen (2001), Transformation of the Finnish Innovation System – a Network Approach, is a timely, but flawed in part study of a key topic. The main report provides a systematic and well-read overview of the international literature on the topic but pays too little attention to the specifics of Finland, in particular the Finnish innovation system, as opposed to its coverage of the Finnish economy in general (a criticism echoed in some other evidence given to us). The programme as a whole comprised 12 projects. A report by Ilkka Tuomi (in press) on innovation in the field of information technology and another by Mika Nieminen and Erkki Kaukonen (Sitra Reports Series 11) on university and R&D networking in a knowledge-based economy, can be singled out from the rest for both high quality and focus upon Finland.

Within the limitation of reading the reports published in English, the remaining publication portfolio is mainly of high quality and relevance to Finland across a wide range of issues. The small number of weak reports are those which address future global trends or the global environment using methodologies favoured by consultants but which have little academic grounding to support their assertions.

### 3.4 DIFFUSION AND DEBATE

Media analysis provided evidence that Sitra has received fair media coverage. A major part of this relates to Sitra's research activities. Research reports have also been widely distributed among the decision-makers. Parliamentary interviewees and government us-

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ers found the research useful and applied it in policy. However, it is hard to see evidence of the diffusion of research findings among the public at large, and even less so of serious debate on Finland's transformation. We feel that more effort should be directed into increased diffusion of Sitra's reports and, especially, to stimulate debate on the issues.

### 3.5 CONCLUSIONS AND RECOMMENDATIONS

- Sitra is not a basic research funding organization, and it should not become one. Sitra needs *strategic research*. This research has to be academically credible. However, Sitra should not fund academic research that is not related to Sitra's problems. It should fill in the gap in research relating to Finland and needed by the country.
- It is not advisable for Sitra to extend its own research capacity, but it should increase *cooperation* with foreign and domestic *research networks*. Sitra should exercise strategic thinking and develop itself as a *think-tank* which collects research and expert opinions, organizes expert seminars and produces reports for decision-makers and relevant material for the general public.

# 4

## Revitalization of industries and prevention of social exclusion

### 4.1 GENERAL

There is general support for Sitra's principle of identifying gaps in the Finnish socio-economic system and providing innovative measures to address these problems on a temporary basis. Most of the persons we interviewed considered that polarization (with respect to regions and social status), depopulation, population ageing and the information society to be major challenges facing Finland. They therefore approve of Sitra's innovative operations. The general role of Sitra in this field is to identify, initiate, facilitate and offer incentives to build up a network of relevant actors. Sitra offers ideas and methods of implementation, it creates networks of local actors (bottom-up) and provides management tools, business contacts and strategies (top-down). The aim is to start fast and selectively, run the projects as social experiments and quickly delete failures.

The basic mission and philosophy of the innovative operations are:

- the techno-economic paradigm shift in the world economy leads to the need for socio-institutional adjustments
- systemic adjustment is a prerequisite for growth and using trials will aim to exploit the increasing returns from systemic complementarities. Therefore, Sitra will endeavour to promote socio-institutional innovation and adjustments.

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The main strategic elements are:

- to facilitate diffusion and wide utilization of information and communication technology (e.g. Learning regions project)
- to support inter-organizational and cross-sector networking (nearly all projects)
- to build social capital for systemic adjustment (most projects).

This strategy is accomplished through studies on benchmarking structure, competitiveness, systemic failures and cross-sector coordination. All projects are platforms for provision of information and knowledge, market development (matching users and producers), quality management and assurance, building social capital (networks, trust, shared frame), matching users and producers for innovation, and framework conditions (technology, regulation, policies).

## 4.2 FINDINGS OF SELECTED INNOVATIVE PROJECTS

### 4.2.1 Learning regions project

The project objectives are to prevent polarization within the information society and to increase information society skills in areas outside growth centres (diffusion of IT use). The selection follows the experimental character of the projects by the selection of contrasting sets of regions (size, population density, degree of multi-languages). These pilot projects should help to establish regional networks and solutions and better understanding of success factors such as local initiatives, favourable conditions of entry, (laymen-training, standardized equipment, service points), motivation for entry and inputs from Sitra (ideas, methods and solutions). Extensive evaluations and accompanying studies contribute to a better understanding and monitor effects and impacts. The first results will be available in 2003, except the results of the successful predecessor project Learning Upper Karelia. This appears to be professionally managed, and implemented according to the above-

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mentioned Sitra principles. In some cases the major difficulty is to maintain the continuity of a project when Sitra stops bearing part of the responsibility.

An evaluation by Jukka Oksa and Jarno Turunen (2001) of the Learning Upper Karelia project came to the following conclusions:

‘The Learning Upper Karelia project has been a success. The strengths of the venture can be found in its grass roots activities, well-implemented lay-training system and construction of the local community network. The good results can be explained by a successful combination of three kinds of factors:

- 1) skillful linking of local resources and local needs to information society development
- 2) adequate outside support in financing and expertise
- 3) enthusiastic, committed and innovative style of local implementation.

Although the project is a success, not all parts were equally successful (e.g. networking of municipalities, initiation of joint electronic marketing and the creation of teleworking jobs)’. Recently, new jobs in teleworking have, however, been created.

The projects visited offered some evidence that even in these cases, the key driving forces of success are the three factors mentioned above. The accompanying studies and evaluations are extremely useful in supporting the understanding of these projects and for improving their implementation.

#### 4.2.2 Skills technology project

The major aim of the skills technology project Taitek is the modernization of traditional sectors. The main instrument is establishment of a special kind of small and medium-sized enterprises’ (SME) network in order to reach international competitiveness and a stronger customer orientation. In the beginning Sitra plays the role of initiator and facilitator, in the later stage (it should play) the role of a venture capital (VC) investor. The project was launched in 1999.



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The first two networks are in the process of finalization (bags and leather goods, contract interiors). The case of musical instruments has been discontinued meanwhile due to the insufficient potential of the enterprises. This indicates Sitra's ability to stop projects quickly if sufficient potential proves lacking.

Within the interviews it became clear there is a strong need for this approach and that Sitra's role as initiator and facilitator is extremely useful. The potential for further networks seems to be high. One procedural weakness of this project may be that the modernization of traditional sectors is limited to one very specific solution (Taitek). It may perhaps be useful to follow more closely the principle that 'the process is the aim'. Nevertheless, the project fits very well into Sitra's VC strategy. A second field for improvements may be better diffusion of the developed models as a demonstration for other firms and sectors.

#### 4.2.3 ISO INKE

The Centre for Social Innovations in Eastern Finland (ISO INKE) is a pilot project that creates new innovation and production structures in the area of social and health care services. In particular, it aims to create a network organization among small service firms to better match the needs of local communities, which have traditionally produced the majority of these services themselves (in the public sector). This is the first time Sitra has entered the field of social innovations in close cooperation with the municipalities, the third sector, the private sector and educational institutions. The project seeks to combine IT applications on commercialization with the local grassroots, social problems and restructuring of the health system. Although the project began in 2000, some indirect effects are already identifiable: the climate within the region improved (from depression to 'new perspectives') and the awareness of relevant actors for this kind of change increased. The first results of the on-going evaluation will be available at the beginning of 2003.

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#### 4.2.4 eHealth

Sitra is developing its eHealth model for domestic and international markets. Its key areas are: to support citizens' own health care and their range of choices, to improve the availability and use of information about health, to develop distance services, and to network the health services provided by the public and private sectors. As one of the agencies that work to further the wellbeing of the Finnish people, Sitra concentrates on funding information management and innovative services. It encourages companies in the field of health care to network with their operations, both in Finland and internationally.

Sitra is developing the eHealth concept in collaboration with leading Finnish and international players. Sitra's partners in Finland include both public and private sector organizations, the Finnish Medical Society Duodecim, the Association of Finnish Pharmacists and its own investee companies, whose products constitute a large family of value-added services. Partners especially in Scandinavia and Great Britain provide information, experience and opinions or international markets to contribute to the development work, and in this way facilitate access to these markets.

This project is an example of successful synergy within Sitra: a close linkage exists between this innovative project and the venture capital division for life sciences. It also became apparent that the project is actually in the critical phase of finding the right access to the market and landing its first major contract, which will be decisive for its success. For this purpose the service firm founded by Sitra developed several service supplies (in-house health services, patient-friendly services for private hospitals and insurance services).

#### 4.3 CONCLUSIONS AND RECOMMENDATIONS

- All the selected projects implement the basic idea of a temporary, initiating and facilitating role for Sitra in certain areas that require innovative solutions. In all cases, Sitra plays a unique role that

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cannot be substituted by private organizations or government authorities. The projects seem to be professionally managed with a strict limitation on Sitra's engagement. In general, the innovative projects are a very successful part of Sitra's portfolio.

- Only two shortcomings which need some improvement were identified. Firstly, a few of the projects visited exhibited some *procedural weaknesses*. They include insufficient early involvement of those actors who are intended to take over the responsibility at a later stage ('exit strategy'), the selection of priority areas, and a careful and flexible process management (instead of pushing Sitra's own favoured solutions). A second weakness is that Sitra is not sufficiently established as a brand name in this area. It should be a major aim of Sitra to develop a *brand name* also in this area – up to now it has been limited to corporate funding – perhaps by greater publicity, a comprehensive, foresight-driven screening process and coherent selection of projects.
- Furthermore, it would be desirable to extend the *internal synergies* between the innovative projects, research, training and corporate funding, which would also strengthen the internal coherence and profile of Sitra as a whole, too. This includes Sitra's efforts to extend its measures for diffusing the best practices developed.

## 5.1 GENERAL

This chapter evaluates two of Sitra's training activities: the courses Finland 2015 and Economic Policy 2000+. It also provides a general assessment of the role of training activities within Sitra's portfolio.

The material available to us included a written evaluation report for Finland 2015 courses 1–3 produced in the Department of Pedagogics at the University of Jyväskylä. The reports on courses 1–5 were also available, as was some of the background material. In addition to written material, we interviewed eleven participants on the fourth course (4 from the public sector, 3 from companies and 4 from the Finnish Parliament). In addition, one of us had participated in the first Finland 2015 course.

In the case of the Economic Policy 2000+ courses, course feedback material was available. Seven participants on the courses were interviewed (3 from the private sector and 4 from the Finnish Parliament). One of us attended a session of the course. These questions were also dealt with in some other interviews.

The mission of Sitra's research, innovative operations and training activities is 'to identify challenges to the Finnish society and build a knowledge-base and analyse strategic alternatives for national decision-makers'. Hence, we ask if 'platforms for intellectual development' would better profile the activity than 'training'.

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Generally speaking, the training activities of Sitra are very successful. All the material available to us unanimously indicates that the participants on the different courses are most satisfied with the substance offered to them and with the practical arrangements related to training.

## 5.2 FINLAND 2015

The purpose of the Finland 2015 programme is ‘to develop the knowledge, skills and networks of senior decision-makers in Finnish society to help them meet the challenges of the future’. Sitra expects that this programme will support the fund’s goal of raising Finland to among the three most successful nations in the world by 2010. Five such courses have been organized so far, and the final one will be held in the latter half of 2002. A final joint seminar for all the courses will be set up in September 2003. The basic structure for the courses has been the same: there are two 5-day seminars abroad (one in the USA or China plus one in Germany and Russia) and two 2-day seminars in Finland. Each course produces a written report.

There have been about 25 participants on each course. The participants, who are senior decision-makers from the Finnish Parliament, major Finnish companies and public and private sector organizations were invited to the course by the Prime Minister. The average age of the participants has been 51 years, and 32% have been female.

As already mentioned, the participants regarded the Finland 2015 course very highly and many mentioned it as one of the best training courses they had ever attended. Sitra has a very good image in the field and was considered a guarantee of quality. It was reported to be neutral, non-commercial, secure, non-political and official, and the acceptance rate for the course has therefore been very high among the invited participants.

A few recommendations for future arrangements were also expressed for Sitra to consider in developing the programme. Some participants suggested the courses should be more diverse, i.e. special topics and different focuses for each course. More interactive meth-

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ods were hoped for. However, the internal information network FutureNet was not used as much as it might have been: the participants are often in positions in which personal use of the Internet is not very common. It should be considered if FutureNet should be introduced to the participants in more detail or perhaps other means of networking should be employed. The time schedule for the lectures was sometimes considered too tight. In the case of foreign lecturers, participants would have liked more opportunities for detailed discussions. It was mentioned several times that the courses might benefit from a more heterogeneous selection of lecturers. Many felt that too homogeneous a picture had perhaps been given of the various topics. The present reporting process (every course preparing a final report) was considered inefficient and repetitive and it was suggested this should be re-evaluated by Sitra.

### 5.3 ECONOMIC POLICY 2000+

Like its predecessors since 1977, the programme Economic Policy 2000+ concentrates on national economic policy. Its purpose is to enlarge and deepen participants' views on economic policy in Finland.

The programme has been organized in its present form six times and consists of a 5-day seminar in Finland close to the capital. There are approximately thirty participants on each course, and Sitra invites members of Parliament (during their first parliamentary period), corporate and organization managers, leading public sector officials and representatives of research, training and communications. Compared to the Finland 2015 courses, there were more specialists present on the Economic Policy 2000+ courses. The average age of participants was 45 years, and 30% were female.

The participants on the programme have characterized the organizer, Sitra, with very similar adjectives as the participants on Finland 2015: neutral, credible and reliable. They appreciated the opportunity to be invited to the course very much. There was major satisfaction with both the contents of the course and the arrangements. We heard very few critical remarks. Some considered the

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course to be elitist, while some were dissatisfied by the fact that not all participants were actively taking part in discussions.

#### 5.4 FUTURE ASPECTS

We discussed in great detail the role of training activities in Sitra's portfolio. Currently, the training activities seem to be rather separate from all Sitra's other activities. We felt very strongly that the training activities should be much *more connected to Sitra's other activities* so that they would support the realization of the topical strategic goals of the organization. It was also asked whether the two types of course are the right ones among the available possibilities. Is the *selection process* wide and critical enough? As discussed in chapter 2.4, Sitra should put major stress on the development of entrepreneurship in Finland, and training activities could be used as part of that. Some specific training services could possibly be outsourced. However, the unanimous success of the activities so far realized by the team should be interpreted to support the present practices. Despite this, Sitra should be ready for *developing its structures*.

There was some suspicion that the participants and lecturers were too homogenous and this could therefore lead to too much *consensus thinking* and not enough new and innovative ideas. By looking critically at where the participants come from, *new networks* needed by society could be created instead of strengthening already existing ones. For example, third sector people and cultural organizations were mentioned in this respect.

We found the *documents* resulting from Finland 2015 not very stimulating – they might be improved by allowing more opinions to be published. Concentrating on a smaller topic might be useful for enhancing the penetration of the document. According to the media analysis, however, the reports on Finland 2015 have gained considerable publicity. Part of this has been somewhat critical similar to our thoughts as expressed above. In addition, it was felt that very little policy-oriented material was produced by the courses. In any event, problems were identified but few suggestions were made for how to solve them.

# 6

## **Role and positioning of Sitra within the Finnish innovation system**

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### 6.1 GENERAL

This part of the evaluation report summarizes our findings from meetings with high-level stakeholders who fell in four categories:

- Parliament members
- government civil servants
- collaborators of Sitra
- industry.

Sitra has at least three roles within the Finnish innovation system:

- as an agent of support for innovation in industry, fulfilling specific functions such as the provision of seed capital and the other activities discussed throughout this report
- as an agent of change with the space to incubate new policies and measures which are subsequently taken up both by Sitra itself and by other innovation support agents
- as an intermediary between Parliament, government departments and industry, helping each to understand more clearly the other's interests in the sphere of innovation policy.



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Commenting on the aforementioned, we can make the following remarks:

## 6.2 AGENT OF SUPPORT FOR INNOVATION

The effectiveness of Sitra in its financial and other activities has been considered in the preceding chapters. Here, the main issue to consider is the positioning of Sitra in relation to the other public agencies with responsibilities in the area of innovation policy. The first point of difference is that Sitra does not report to any Ministry, though key Ministries are represented on its Board at a senior level. This means that there is less expectation that its activities should be coordinated with other agencies. There was a consensus in our interviews that coordination is greater today than it has been historically.

A key policy issue for government, though not for Sitra, is whether there are gaps or unnecessary duplications in the provision of innovation support. This issue is to be examined in a separate evaluation, so here we focus only on the position of Sitra in relation to the other players, taking them in order approximately along the innovation chain:

*Academy of Finland:* There is clearly no overlap here. The basic complementarity lies in the Academy's support for science from which Sitra's companies can emerge or otherwise benefit. There are now regular meetings of staff which are considered mutually beneficial and a joint activity (with the National Technology Agency Tekes and the Technical Research Centre of Finland VTT) in foresight. Some policy issues such as ownership of academic intellectual property rights (IPR) are of strong mutual interest.

*Tekes:* While Tekes operates distinctively in its project financing, a small degree of overlap does exist in commercialization activities. However, this has been positively managed through joint activities in preseed funding which can draw upon the expertise of both organizations to offer a service which all innovation agents agree is much needed. A future problem is that Sitra is now promoting

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innovation which does not necessarily involve advanced technology but Tekes does not have the mandate to follow it with further support.

*Finnish Industry Investment Ltd TESI:* At first sight there is substantial overlap here, in that TESI shares with Sitra an interest in the encouragement of the Finnish venture capital market. However, our investigations indicate a finer degree of granularity, with a division of labour and a difference in approach. Sitra invests directly in early stage companies, while TESI has traditionally worked through funds and operates downstream from preseed and seed financing, for example supporting restructuring and management buyouts. A joint venture between TESI and Sitra has been the creation of the Eqvitec group. Again there are issues for the future division of labour, as both organizations react to the recent emergence of privately financed venture capital in Finland and now to the global difficulties experienced in that market.

*Finnvera:* There is a considerable difference in scale between Sitra and Finnvera. The latter has multiple roles in providing risk finance for SMEs, promotion of internationalization and exports and promotion of regional policy measures. Despite the difference in the basis for financing there is a degree of overlap with Sitra's more downstream investments. This is likely to diminish as Sitra continues to reposition itself.

*Finpro:* No overlap exists here, as Finpro's central activity is to provide consultancy and advice to assist firms in global market entry using its foreign representative network. There has been some cooperation, as Sitra has invested in strategic networks of SMEs identified by Finpro. There could be further scope for future collaboration to meet the continuing need for more global and multicultural awareness among Finnish innovative companies to help them understand their future markets.

It is also worth noting that Sitra cooperates with other actors in the innovation system, including large firms and public research institutes. The two large firms which provided evidence (Nokia and Outokumpu) had cooperated with Sitra in the commercialization

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of technologies developed within the company but not consistent with its current portfolio.

### 6.3 AGENT OF CHANGE IN THE INNOVATION SYSTEM

Almost every interviewee stressed the benefit of Sitra's constitutional independence and flexibility to react quickly and creatively. The evolution of Sitra from project financing to venture capital to seed and preseed funding, along with the innovative projects, has demonstrated that public intervention need not involve the creation of permanent dependency in parts of the private sector but rather provide the opportunity for learning and demonstration to the point where the market can take over. The emergence of private venture capital allowing Sitra gradually to withdraw is a prime example, even if the current market downturn slows that transition.

However, it is clear that many of the areas Sitra addresses will remain as market and system failures and hence require continuing government action. For this reason, the transfer of responsibility for activities from Sitra to other agencies is very important. We heard criticism that Sitra had not always communicated its intentions quickly enough to other actors to enable them to take over such roles. One sporting analogy we heard was that Sitra was the libero in a soccer team, able to roam at will in all parts of the field. To stretch the analogy we may point out that no single player can win a match and a critical success factor is the ability to pass the ball. Clearly there is a delicate trade-off between agility and bringing along the other players. Our impression is that the increased level of coordination mentioned in the previous section will make this better managed in the future.

One other respect in which Sitra has been acting as an agent of change is to emphasize that innovation is not necessarily science-based and not necessarily confined to fully commercial activities. Its role with traditional industries and with public goods sectors such

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as health are again valuable exemplars and illustrate some of the unrealized potential of public-private partnerships.

#### 6.4 INTERMEDIARY

Through its links with Parliament and its research and training activities, Sitra has involved senior decision-makers in key innovation issues to a much higher degree than is normally the case in other countries. While not the sole source of such inputs (remembering the valuable role of bodies such as the Science and Technology Policy Council), nonetheless this benefit is hard to overstate seen from a foreign perspective.

#### 6.5 CONCLUSIONS AND RECOMMENDATIONS

- Sitra plays *a complementary role* to other actors in the innovation system, with several instances of mutual positive gearing of actions through joint effort. In any case its small size in relation to the need for financing means that overlaps are not harmful. However, the *situation* is a *dynamic* one and requires constant monitoring on the part of Sitra and its collaborators.
- Sitra should be *a strong agent of change*. It should communicate its intentions early enough to other organizations to enable them to take over relevant activities when desirable.
- Clearly, Sitra has an important role as *an intermediary* between Parliament and other actors in society.

### 7.1 GENERAL

In the course of the evaluation process, Sitra produced its new strategy. This gives a very detailed plan of activities for the years 2003–2005. However, it is more an operational plan than a strategy document. It has many merits and shows that Sitra is paying attention to some of the topics that have also appeared during the evaluation process. However, we would like to see a clear-cut strategic document that should be more concise (no longer than eight pages) and more globally oriented than the present one. A SWOT<sup>1</sup> analysis and a collaboration analysis of what the other agents in the Finnish innovation system are likely to do in the coming years would be helpful. We also feel that the Board of Directors should be very active in drawing up the *new strategy*.

Many proposals are made for future activity fields of Sitra:

- to pay more attention to the service sector and the integration of service and production sectors
- to extend and develop the cluster approach: building horizontal competencies such as security and health/medicine/food
- to encourage entrepreneurship (the number of small firms and start-ups are still insufficient)

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- to tackle mismanagement in the information society (because of a lack of available solutions)
  - to cope with the consequences of globalization on government reforms (tax system, welfare system)
  - to promote innovation in the public sector
  - to support and contribute to the development of the third and fourth generation of the information society
  - to participate in the discussion of new roles for universities.

It seems that ideas about new fields are not a bottleneck. The problem may be that too many ideas exist, which makes it difficult to develop a future portfolio that is both coherent and strongly interconnected. Sitra should take care of the following four essential aims: keep independence, reach higher reputation, get acceptance by political and industrial high-level decision-makers and keep associated with a clear profile. This portfolio should allow Sitra to develop a new brand name that is no longer limited to corporate funding. What Sitra needs, especially when coping with foreign partners, is a strong and positive name. There should be *systematic brand building* in Sitra.

## 7.2 CONCLUSIONS AND RECOMMENDATIONS

- We would also like to comment on the *governance structure* of Sitra. This topic was frequently discussed by us and Sitra members in interviews. Our conclusion is that the present governance structure of Sitra is adequate also for foreseeable future needs. It was, however, frequently asked whether more industrial expertise might be needed on the Board of Directors. In addition, a member with very substantial science merits might be useful on the Board. At the same time, it is appreciated that the size of the Board should not grow to the point of inefficiency.
- Our general conclusion is that a major challenge for Sitra in the future is to be a stronger *global player*. For Sitra, one of the most

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urgent topics must be to look at how it can be better linked with international networks and how international developments can be rapidly incorporated into Sitra's thinking and activities. Sitra should, for example, consider acquiring an international advisory committee or strengthening its Research Council with foreign members.

- The *title of the president* of Sitra in Finnish (yliasiames) is very rare and thus often misleading. Could it be changed to a title common in other public organizations (pääjohtaja)?
- Due to some tendencies of departmentalization and fragmentation, Sitra should establish internal processes to exploit the potential for *synergies* between its different organizational functions (e.g. internal mobility, integrated teams and matrix organization).
- Sitra should also ensure efficiency and a permanently self-critical attitude by establishing a *benchmarking* exercise for its basic functions.

In summary, Sitra has been successful. It has been doing the right things in the right way. It will be challenging to find strategies for how to maintain this success in a rapidly changing environment and the change in leadership happening soon. The following list repeats the recommendations made at the end of individual chapters. For clarity, respective chapter numbers are also given.

### Corporate funding (2)

- The shift towards preseed funding filled an important gap in the Finnish innovation system. Moreover, Sitra's pioneering work in establishing private venture capital funds has been beneficial for more advanced firms. The increased emphasis on life sciences is supported, as this is a sector that needs patient capital. Work reinforcing knowledge transfer from universities to companies is also appreciated.
- Sitra is not viewed as a competitor by other Finnish investors. It has truly succeeded in creating a unique role in Finnish corporate funding. Sitra's good reputation as a safe and reliable partner has enabled it to exert a positive influence on other Finnish investors when making their investment decisions. However, Sitra cannot be considered successful in attracting sufficient *foreign venture capital investment* to Finland, and it should actively search for ways to improve the situation.



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- Although Sitra's overall reputation is good and it has successfully boosted Finnish companies, there have also been some concerns about the efficacy of its decision-making. Many of the investee companies have wished for more involvement by Sitra in the *management* of their companies. Sitra should consider on the one hand the number of companies under each manager, and on the other the balance between the cost of management and the investment made in the company. Cooperation with incubators could be a good alternative here. When evaluating the most promising companies for its investment portfolio, the best possible experts in the field should be used if the appropriate expertise is not represented among Sitra's own personnel.
  - We also strongly encourage Sitra to continue its efforts to *collaborate* with other actors in the field to reduce bureaucratic overlap as much as possible and create a functional network of investors to help finance promising companies. In this context, Sitra can act as a balancing force among Finnish investors, who dominate the field due to the lack of foreign investors.
  - Sitra as a central financing body will have to take responsibility for fostering a new *entrepreneur-friendly culture* in Finland. Sitra is also in an excellent position to provide moral support to individual entrepreneurs.

#### Strategic research activities (3)

- Sitra is not a basic research funding organization, and it should not become one. Sitra needs *strategic research*. This research has to be academically credible. However, Sitra should not fund academic research that is not related to Sitra's problems. It should fill in the gap in research relating to Finland and needed by the country.
- It is not advisable for Sitra to extend its own research capacity, but it should increase *cooperation* with foreign and domestic *research networks*. Sitra should exercise strategic thinking and develop itself as a *think-tank* which collects research and expert opinions, organizes expert seminars and produces reports for decision-makers and relevant material for the general public.

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Revitalization of industries and prevention of social exclusion (4)

- All the selected projects implement the basic idea of a temporary, initiating and facilitating role for Sitra in certain areas that require innovative solutions. In all cases, Sitra plays a unique role that cannot be substituted by private organizations or government authorities. The projects seem to be professionally managed with a strict limitation on Sitra's engagement. In general, the innovative projects are a very successful part of Sitra's portfolio.
- Only two shortcomings which need some improvement were identified. Firstly, a few of the projects visited exhibited some *procedural weaknesses*. They include insufficient early involvement of those actors who are intended to take over the responsibility at a later stage ('exit strategy'), the selection of priority areas, and a careful and flexible process management (instead of pushing Sitra's own favoured solutions). A second weakness is that Sitra is not sufficiently established as a *brand name* in this area. It should be a major aim of Sitra to develop a brand name also in this area – up to now it has been limited to corporate funding – perhaps by greater publicity, a comprehensive, foresight-driven screening process and coherent selection of projects.
- Furthermore, it would be desirable to extend the *internal synergies* between the innovative projects, research, training and corporate funding, which would also strengthen the internal coherence and profile of Sitra as a whole, too. This includes Sitra's efforts to extend its measures for diffusing the best practices developed.

Platforms for intellectual development (5)

- We discussed in great detail the role of training activities in Sitra's portfolio. Currently, the training activities seem to be rather separate from all Sitra's other activities. We felt very strongly that the training activities should be much *more connected to Sitra's other activities* so that they would support the realization of the topical strategic goals of the organization. It was also asked whether the two types of course are the right ones among the available possibilities. Is the *selection process* wide and critical enough? As

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discussed in chapter 2.4, Sitra should put major stress on the development of entrepreneurship in Finland, and training activities could be used as part of that. Some specific training services could possibly be outsourced. However, the unanimous success of the activities so far realized by the team should be interpreted to support the present practices. Despite this, Sitra should be ready for *developing its structures*.

- There was some suspicion that the participants and lecturers were too homogenous and this could therefore lead to too much *consensus thinking* and not enough new and innovative ideas. By looking critically at where the participants come from, *new networks* needed by society could be created instead of strengthening already existing ones. For example, third sector people and cultural organizations were mentioned in this respect.
- We found the *documents* resulting from Finland 2015 not very stimulating – they might be improved by allowing more opinions to be published. Concentrating on a smaller topic might be useful for enhancing the penetration of the document. According to the media analysis, however, the reports on Finland 2015 have gained considerable publicity. Part of this has been somewhat critical similar to our thoughts as expressed above. In addition, it was felt that very little policy-oriented material was produced by the courses. In any event, problems were identified but few suggestions were made for how to solve them.

Role and positioning of Sitra within the Finnish innovation system (6)

- Sitra plays a *complementary role* to other actors in the innovation system, with several instances of mutual positive gearing of actions through joint effort. In any case its small size in relation to the need for financing means that overlaps are not harmful. However, the *situation* is a *dynamic* one and requires constant monitoring on the part of Sitra and its collaborators.
- Sitra should be a *strong agent of change*. It should communicate its intentions early enough to other organizations to enable them to take over relevant activities when desirable.

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- Clearly, Sitra has an important role as *an intermediary* between Parliament and other actors in society.

#### Future plans of Sitra (7)

- We would also like to comment on the *governance structure* of Sitra. This topic was frequently discussed by us and Sitra members in interviews. Our conclusion is that the present governance structure of Sitra is adequate also for foreseeable future needs. It was, however, frequently asked whether more industrial expertise might be needed on the Board of Directors. In addition, a member with very substantial science merits might be useful on the Board. At the same time, it is appreciated that the size of the Board should not grow to the point of inefficiency.
- Our general conclusion is that a major challenge for Sitra in the future is to be a stronger *global player*. For Sitra, one of the most urgent topics must be to look at how it can be better linked with international networks and how international developments can be rapidly incorporated into Sitra's thinking and activities. Sitra should consider acquiring, for example, an international advisory committee or having foreign members in its Research Council.
- The *title of the president* of Sitra in Finnish (*ylIASIAMIES*) is very rare and thus often misleading. Could it be changed to a title common in other public organizations (*pääjohtaja*)?
- Due to some tendencies of departmentalization and fragmentation, Sitra should establish internal processes to exploit the potential for *synergies* between its different organizational functions (e.g. internal mobility, integrated teams and matrix organization).
- Sitra should also ensure efficiency and a permanently self-critical attitude by establishing a *benchmarking* exercise for its basic functions.

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## APPENDIX 1: MILESTONES IN THE HISTORY OF SITRA

- 1967 In special session on December 5, 1967, Parliament sets up the Fund under the Bank of Finland, with FIM 100 million in endowment capital
- 1968 Sitra starts operating, and becomes Finland's leading public financier of technological product development and research, with research and test projects of social and economic benefit forming its second string  
Klaus Waris President of Sitra 1968–72  
Research on the international competitiveness of Finnish industry
- 1972 Kaarlo Larna President 1972–73  
Research on the thermal economy of buildings  
Endowment capital raised by FIM 100 million
- 1973 Water and Environment of Communities project  
Research on the growth and use of short-cycle wood
- 1974 Professor C.E. Carlson President 1974–86
- 1975 Industrial Energy Economy project  
Study on mass catering
- 1977 Start of Economic Policy Management Training; pilot course  
Research on the development of hospital care practices  
Endowment capital raised by FIM 100 million
- 1978 Industrial Wastewater project
- 1980 Research project on improving the regional utilization of domestic solid fuels  
Combination DNA project, leading to the establishment in 1983 of the Helsinki University Department of Gene Technology (Currently: Institute of Biotechnology)
- 1981 Nitrogen Project  
Endowment capital raised by FIM 100 million

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- 1982 Machine translation project
- 1983 Foundation of the National Technology Agency (Tekes) and the Ministry of the Environment; Sitra instrumental in the process
- 1986 Professor Jorma Routti made President  
National Technology – Economy – Society project of IIASA
- 1987 Reorientation of Sitra operations: focus of corporate funding shifted from product development projects to the promotion of venture capital investment and commercialization of technology, and the construction of cooperation networks to this end in Finland and abroad
- 1988 European Private Equity and Venture Capital Association EVCA conference arranged by Sitra  
First supplementary training course for economists
- 1989 Licensing Technology from the Soviet Union project  
Also other cooperation projects with the USSR  
Economic policy seminar in Tallinn for Estonian MPs and ministers, organized by Sitra, the Estonian ministry of economic affairs and the Estonian Institute of Business Management
- 1990 Start of supplementary training courses for journalists  
Foundation of the Finnish Venture Capital Association on Sitra's initiative
- 1991 Sitra's status changed into an independent public foundation under the supervision of Parliament  
First National Strategy Development Programme course  
Several other ongoing projects related to European integration  
11th conference of National Research and Development Organizations arranged by Sitra  
Foundation of Oy Sitrans Ltd: main owner Sitra, with four Soviet organizations as minority shareholders
- 1992 75th anniversary of Finnish independence and 25th anniversary of Sitra  
– 25th anniversary seminar  
– Books: National economy 2017 and Social policy 2017  
– Special independence exhibition at the Heureka Science Centre  
National Competitiveness and the Industrial Future project  
Innopotti job invention competition, arranged by Sitra and the National Board of Patents and Registration  
Endowment capital raised by FIM 100 million



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- 1993 Several projects working on Finland's future options and strategies, and surveys related to the venture capital investment industry
- 1994 INNOSUOMI project  
Economic Policy Databank project  
Endowment capital raised by FIM 100 million
- 1995 Investments in three funds in Russia and the Baltic region  
Environmental invention competition arranged by Sitra and the National Board of Patents and Registration
- 1996 Launch of the Matching service  
Foundation of the Research Council of Sitra  
Western Europe Funding Area project
- 1997 Aatto Prihti made President  
Corporatization of later-stage venture capital investment operations into technology funds and their management companies  
Launch of innovative projects through the Barrier-Free World project  
Globalization, Welfare and Employment research project  
Revision of the National Information Society Strategy project  
Growth and Development of Networks between Knowledge-Intensive Companies project  
Information and Communication Technology in Teaching and Learning project  
Start of Russia training for journalists  
New book series: Puheenvuoroja Points of View  
Special seminars to mark Sitra's 30th and Finland's 80th anniversary  
Endowment capital raised by FIM 200 million (nominal value)
- 1998 Learning Karelia project  
Senior Citizen 2000 project
- 1999 Economic Policy 2000+ training programme  
Extension of Russia training to journalists in EU countries  
Research programme on an Innovation System  
Skills technology project Taitek  
Politics & Internet Congress  
Sitra takes over the Modern Times Forum scene in Helsinki's Lasipalatsi
- 2000 Start of the Finland 2015 training programme  
Europe 2020 international research programme  
Start of the Spearhead Network  
Foundation of the Centre for Social Innovations in Eastern Finland

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Learning regions project OSKU  
Challenges of the New Economy project  
eHealth project

Endowment capital raised by FIM 200 million (nominal value)

2001 Start of PreSeed corporate funding operations through the LIKSA service

Start of the Russian Future-Makers in Finland training programme

Endowment capital raised by FIM 400 million (nominal value)

(endowment capital 31 December 2001: nominal value EUR 235 million,  
market value about EUR 600 million)

2002 Network development and financing become Sitra's new venture capital  
investment function

Start of the INTRO service in PreSeed operations

Enterprise Finland network service

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## APPENDIX 2: PRESENTATION OF THE MEMBERS OF THE EVALUATION GROUP

*Manuel Castells* is Professor of Sociology and Professor of City and Regional Planning at the University of California, Berkeley, and Research Professor of Internet Studies at the Open University of Catalonia. He is the author of 25 books, including the trilogy *The Information Age: Economy, Society, and Culture* (Blackwell, 1996–2000), *The Internet Galaxy* (Oxford, 2001), and *The Information Society and the Welfare State: The Finnish Model* (Oxford, 2002) (with Pekka Himanen).

Professor *Luke Georghiou* is Executive Director of PREST (Policy Research in Engineering, Science and Technology) and professor of Science & Technology Policy and Management at the University of Manchester. His research interests include evaluation of R&D and innovation policy, foresight, national and international science policy and management of science and technology. Recent projects include several studies of industry–science relations, policy for international scientific cooperation, evaluation of foresight and changes in public sector research institutions. He has chaired or been a member of committees of many evaluation projects in different countries. Prof. Georghiou has published widely in these areas.

*Sirpa Jalkanen* is Academy Professor and Director of the National Centre of Excellence: Cell Trafficking. Her research is oriented towards new discoveries in biomedicine and biotechnology. She has published more than one hundred original articles in highly ranked international journals. She is a member of several granting and evaluation committees. She is a co-founder of the first listed (Helsinki Stock Exchange) biotechnology company in Finland.

Professor *Frieder Meyer-Krahmer* is Director of the Fraunhofer–Institute for Systems and Innovation Research (ISI) and Professor of Innovation Economics at the University Louis Pasteur, Strasbourg. His research subjects comprise technology and innovation policy and its evaluation, innovation in small and medium-sized firms, innovation and regional development, structural change and industrial policy, and innovation and environment. He is one of the main editors of the international journal ‘Research Policy’, and he is also a member of many scientific committees. Prof. Meyer-Krahmer has published numerous scientific books and articles.

Professor *Reijo Vihko* is President and Director General of the Academy of Finland, which is the main public research–funding organization in Finland. He is a member of the Science and Technology Policy Council of Finland, chairs the European Union Heads of Research Councils, is member of the EC’s European

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Research Advisory Board (EURAB), chairs its working group on Enlargement and the European Research Area, and is a member of the Governing Council of the European Science Foundation. His research was on sex steroid hormones, their regulation and mechanism of action. Currently, he is writing on science policy and has been available for various evaluation tasks relating to research and research funding.

Docent, D.Sc. (econ.) *Pirjo Vuokko* is the Director of the Institute for Executive Education at Turku School of Economics and Business Administration. The Institute designs, develops and implements training programmes (e.g. the executive MBA programme) for executives and top level experts in the private and public sectors. In addition to being in charge of these programmes, she is also the responsible teacher and tutor for their marketing modules and theses. Her research and teaching interests include customer orientation, corporate image, brands, advertising, marketing communications and public sector marketing. She has given several courses and completed studies on these topics. Pirjo Vuokko is a member of the board of three Finnish companies and also a member of various committees and working groups in both private and public sector organizations.

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## APPENDIX 3: SUMMARY OF THE REPORT ON MEDIA ANALYSIS BY OBSERVER FINLAND LTD.

This media analysis is based on media coverage received by Sitra, the Finnish National Fund for Research and Development, in the Finnish media during the period of January 1st 1999 – December 31st 2001. The analysis is based on material that appeared in all Finnish national, provincial, business, regional, local and trade papers and freesheets. During the analysis period Sitra appeared 4,521 times in the media.

The media coverage received by Sitra increased throughout the analysed period. *The growth in Sitra's media coverage was based on media's increased interest in Sitra's research and training projects and innovative operations* in 2000 and 2001. As the media coverage increased, also Sitra's prominence became more visible. Media focused on Sitra more extensively. More effective press activities can partly explain the increased prominence.

*The overall media image of Sitra was slightly favourable throughout the three year analysis period* and there were no differences in the media favourability score between the analysed years. Most of the publicity received by Sitra was neutral. The share of positive coverage was the largest around the topics of training and research and innovative operations. Especially, *Learning Ylä-Karjala* project generated very positive publicity. Negative publicity towards Sitra was almost non-existent and was generated mainly by single news.

Sitra's research and training projects interested the media most when the reports from these projects were released. Otherwise these projects received publicity sporadically. *Finland 2015* programme was the project that the media was most interested in. The results of this programme stimulated discussion in the media every time those were released. On the other hand, innovative operations generated quite steadily coverage.

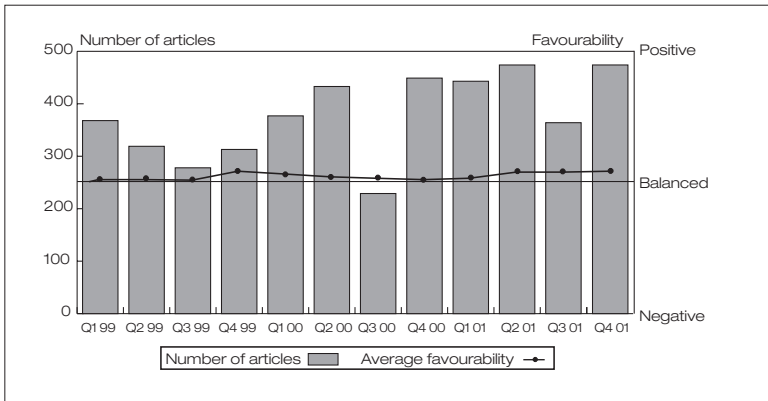
In the media, Sitra's management was considered as recognized and appreciated experts in various important economic and social issues as they were asked to give speeches and comments in numerous different kinds of occasions. President *Aatto Prihti* and Director of Research *Antti Hautamäki* were the two members of Sitra's management that received the most extensive media coverage.

Sitra's coverage was most extensive in the most important Finnish newspapers and business papers. *Helsingin Sanomat*, *Kauppalehti* and *Taloussanomat* were the three papers that wrote most often about Sitra. The regional and local papers focused mainly on various research projects, while national papers and provincial newspapers covered all four main topics (Corporate funding, Research and innovative operations, Training and Sitra in general). Business papers and periodicals put emphasis most on issues relating to corporate funding.

*Sitra's image was formed by several separate issues.* It received publicity through its individual projects and operations, but the general view of its core activities and its role in Finnish society was unclear. Overall picture of Sitra and what it is all about was not clearly expressed in the media. Due to this Sitra remained somewhat indistinct, even among journalists.

### The development of Sitra's overall media image 1999–2001

Sitra's media image and publicity  
(n=4521)



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## APPENDIX 4: SUMMARY OF THE REPORT ON RESEARCH ACTIVITIES BY NET EFFECT LTD.

To back up the international evaluation of Sitra, stakeholders and users of Sitra's research were interviewed in order to get a broader picture on its societal relevance. Interviewees gave generally good scores for the research activities. The quality was considered high and the themes relevant. Sitra was seen as an organization with large resources, which it can flexibly, independently and reactively channel into new areas of interest. The mission of Sitra's research activities – production of usable knowledge for decision-makers and public discussion – was considered motivated. In achieving this goal, Sitra is seen as succeeding relatively well. Sitra's position as an organization capable of mobilising multidisciplinary research on interlinking and cross-cutting themes on economy, society, public services and civil society was credited. Also the concept of commissioning studies from the best available resources without building up heavy research organization was seen as efficient.

Clear criticism, however, was levelled at the lack of proper focus in research. Many interviewees stated that Sitra's research tries to touch upon too many themes. The attention is fragmented into too many areas, though the areas as such were seen as relevant.

Another clear critique which was raised by several respondents was directed at an elitist tone in Sitra's research activity. The group of experts that Sitra collaborates with was widely regarded as a closed circle. Also the internal process of selecting the research themes was considered non-transparent, partly unsystematic and in the hands of the few.

The majority of those interviewed did not see any problem with the dissemination of Sitra's publications and research results. Several dissemination channels were identified, which brings about impacts on personal, organizational as well as political level. Several stakeholders, however, considered the dissemination process somewhat old-fashioned, with publication seminars and communications being the basic channels. Correspondingly, a clear criticism was presented about target group being not defined for the research projects. Closer coupling of research managers, researchers and the knowledge users was suggested.

The societal relevance of Sitra's research was considered relatively high. Respondents felt that the knowledge has had a contribution in raising new themes into discussion and partly even guiding its courses. Some could even present concrete examples of utilization at a personal level. Some larger policy implications were also identified in certain policy fields, notably in innovation and R&D policy. However, further enhancement of the utilization was clearly suggested by many interviewees.

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## APPENDIX 5: LIST OF INTERVIEWEES

Ahtisaari, Martti	Crisis Management Initiative
Ala-Kapee, Pirjo	Provincial administrative board of Eastern Finland
Andersson, Matts	Sitra Management Ltd
Arojärvi, Olli	PwC Corporate Finance
Backman, Jouni	Finnish Parliament
Bjurström, Ann	Ann Bags Ltd
Halme, Kimmo	Science and Technology Policy Council of Finland
Hanhijärvi, Hannu	Sitra
Honkala, Matti	Kesko Corporation
Huttunen, Jussi	National Public Health Institute
Hämäläinen, Timo	Sitra
Illi, Marja	Sitra
Jäntti, Paula	Diaconia Polytechnic
Jätteenmäki, Anneli	Finnish Parliament
Kallis, Bjarne	Finnish Parliament
Kanerva, Ilkka	Finnish Parliament
Kangasniemi, Erkki	Trade Union of Education in Finland
Kankaala, Kari	Sitra
Karjoma, Lea	Diaconia Polytechnic
Katainen, Jyrki	Finnish Parliament
Keravuori, Klaus	PwC Corporate Finance
Kerola, Inkeri	Finnish Parliament
Kilpinen, Sanna	Observer Finland Ltd
Komi, Katri	Finnish Parliament
Kontro, Lauri	Maaseudun Tulevaisuus (Rural Finland)
Kopra, Yrjö	Alexander Corporate Finance Oy
Koskenlinna, Markus	Tekes
Koskikallio, Ilpo	Glocal Ltd
Koskinen, Jari	Finnish Parliament
Koskinen, Jussi	Observer Finland Ltd
Kurki, Hannu	Maunula Society
Kurkijärvi, Kalevi	BioFund
Lahtinen, Simo	Diaconia Polytechnic
Laine, Seppo	Finpro
Laukkanen, Markku	Finnish Parliament
Lehto, Elina	Employment and Economic Development Centre for Uusimaa
Lehtomäki, Vesa	Sitra
Leppävuori, Erkki	VTT Technical Research Centre of Finland



Lignell, Jyrki	Setec Oy
Lindgren, Leena	Observer Finland Ltd
Linna, Markku	Ministry of Education
Manninen, Jouko	Bomba
Marjosola, Juha	Finnish Industry Investment Ltd
Marttila, Sari	Diaconia Polytechnic
Mattila, Ilkka	Diaconia Polytechnic
Mennander, Tero	Den Danske Bank
Mutala, Mika	Special Bag – Erikoislaukku Oy
Mutala, Tellervo	Special Bag – Erikoislaukku Oy
Mäenpää, Martti	Federation of Finnish metal, engineering and electrotechnical industries – MET
Mäki-Lohiluoma, Kari-Pekka	Sitra
Mäkinen, Juho	Outokumpu Oyj
Mäkinen, Markku	Finnvera
Mäkinen, Pentti	Central Chamber of Commerce
Neuvo, Yrjö	Nokia
Nousiainen, Inkeri	Diaconia Polytechnic
Nousiainen, Juha	Pieksämäki rural municipality
Ojanperä, Heikki	Sitra
Ojansivu, Otto	Otto Ojansivu Oy
Ojansivu, Seija	Otto Ojansivu Oy
Oksa, Jukka	University of Joensuu
Parjanne, Risto	Association of Finnish Local and Regional Authorities
Parvinen, Ilmo	Sitra
Pauli, Anneli	Academy of Finland
Raivio, Kari	University of Helsinki
Rantanen, Heli	Helsinki University of Technology
Renkonen, Risto	Biomedicum, University of Helsinki
Romanainen, Jari	Tekes
Roponen, Maritta	Diaconia Polytechnic
Saarnivaara, Veli-Pekka	Tekes
Sailas, Raimo	Ministry of Finance
Sallinen, Aino	University of Jyväskylä
Seppälä, Esko-Olavi	Science and Technology Policy Council of Finland
Sinisalonen, Silja-Riitta	MediNeuvo Oy
Solkkinen, Marko	Bag Valley Knowledge Centre
Summanen, Tuomo	Finpro
Sutinen, Teija	Helsingin Sanomat
Tanskanen, Antti	OKOBANK Group
Tiitinen, Seppo	Finnish Parliament
Tiuri, Martti	Finnish Parliament
Tolvanen, Kaija	Diaconia Polytechnic
Turunen, Jarno	University of Joensuu
Uosukainen, Riitta	Finnish Parliament
Uusikylä, Petri	Net Effect Ltd.
Wahlroos, Juha	PricewaterhouseCoopers Oy

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Valovirta, Ville	Net Effect Ltd.
Vanhala, Ritva	PwC Corporate Finance
Varpe, Riitta	Employment and Economic Development Centre for Pirkanmaa
Virtanen, Erkki	Ministry of Trade and Industry
Virtanen, Petri	Net Effect Ltd.
Virtanen, Petri	QuestionMark Multimedia
Virtanen, Risto	Bag Valley Knowledge Centre
Ylä-Anttila, Pekka	Research Institute of the Finnish Economy ETLA

In addition to the persons interviewed by the evaluation group, there were 23 interviewees representing organizations close to Sitra's research activities, interviewed by Net Effect Ltd., and 79 persons involved in corporate funding, interviewed by PwC Corporate Finance Ltd.

■ A group of international experts was appointed to evaluate Sitra's activities, assess whether Sitra does the right things in the right way and determine the challenges that lie ahead.

The evaluators found that Sitra is a patient financier, a reliable and impartial producer of new information and a catalyst for public debate. Sitra's flexibility in getting to grips with new social experiments is highly respected. In order to ensure that this success continues, the experts made a number of recommendations.

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