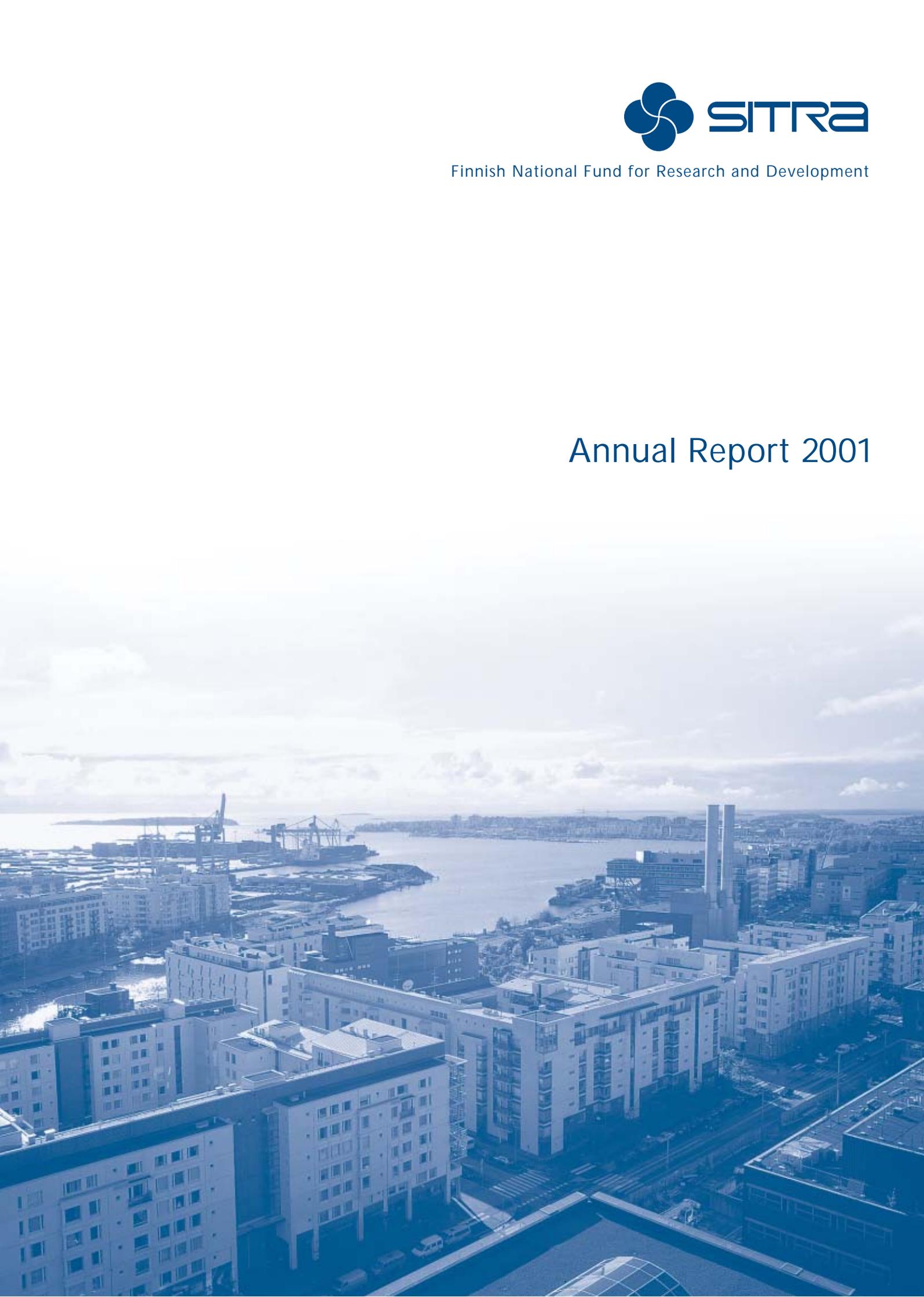




Finnish National Fund for Research and Development

# Annual Report 2001



## NEW VIEWS



### Sitra – aims to further economic prosperity in Finland

- by developing new and successful business operations
- by financing the commercial exploitation of expertise
- by promoting international competitiveness and cooperation

### Sitra – an autonomous pioneer

- enjoying economic independence
  - with courage and initiative
- initiating operations designed to break new ground

### Sitra – an impartial opinion-shaper

- providing new research information
- anticipating and identifying future challenges
  - developing new solutions

The Finnish National Fund for Research and Development (Sitra) is an independent public foundation under the supervision of the Finnish Parliament. Sitra aims to promote Finland's economic prosperity by encouraging research, backing innovative projects, organising training programmes and providing venture capital. Sitra's activities are financed from the yield of its original endowment and of project finance.

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## “ A Small Country with Many Factors of Success ”



Aatto Prihti

“**E**xpertise and the ability to exploit it rapidly lay the foundations for national success,” says **Aatto Prihti**, the president of Sitra.

“Expertise exists in people and in networks but without the constant will to embrace new ideas and skills it soon disintegrates. The need to learn continues to grow. It poses a major educational challenge for Finland.”

According to Prihti social capital has proved to be a much more important factor of success among nations than was previously thought to be the case.

“The trust enshrined in social capital is a great competitive advantage, since in a networking economy the number of cooperative links grows; formal contracts with their accompanying bureaucracy, on the other hand, lead to poorer efficiency. It is a feature of the Finnish national character that what you promise, you carry out. If this trust can be retained in a networking economy, then it will give us an important competitive edge. A community where people firmly trust each other operates flexibly and economically.”

Prihti points out that social capital offers the individual an opportunity to fulfil himself in all walks

of life – at work, at leisure and as an entrepreneur, for example. Innovative thinking in everyday life is something that needs to be inspired in all Finns today. This is the field in which international competition will be waged.

“Equally important is for people to be aware of how they can get help and security as they get older or when they are struck by illness or unemployment. In a welfare society services are an integral part of the nation’s factors of success. National unity requires every citizen to be cared for with respect. A welfare society that is properly constructed inspires the enthusiasm needed for success. High technology offers new ways for the more efficient production of welfare services.”

In a globalising world there is an enormous amount of money but it is not directed towards the public sector. Quite the opposite: Prihti is of the opinion that many traditional objects of taxation – for example, alcohol, tobacco and cars – will lose their significance as markets become more harmonised.

“Even income tax cannot be too high because it encourages the best people to leave the country. Nor is it self-evident that companies will remain in Finland. We have to ensure that the economy continues to grow and to keep welfare costs at an efficient level.”

With the aid of research and training Sitra endeavours to give decision-makers insights into the international factors of change and their importance for Finland.

“By means of innovative activities and corporate funding we aim at an ever-increasing exploitation of Finnish expertise. Through our innovative projects in particular we have tried to find different ways to eliminate the ill effects of the know-how society, in other words centralisation and alienation,” says Prihti.

“In the field of corporate funding we have started the new PreSeed project in cooperation with the National Technology Agency (Tekes). This is designed to speed up the availability of capital to promising new enterprises.”

During the year under review Sitra also started an international evaluation of its own activities. The key question is whether Sitra is doing the right things in the right way and efficiently enough.

“This evaluation process, which will be completed in the autumn of 2002, will, we hope, provide new incentives to develop our operations.”

The year 2001 was an economically difficult one for Sitra. The market value of Sitra’s endowment capital decreased because of falling share prices and the return on corporate funding was modest in view of the market situation.

“The setback experienced by the IT industry in the spring reduced the number of applications for funding that Sitra received from IT companies. On the other hand, the fact that many other sources of funding dried up meant that many turned to us instead to see if we were ready to grant risk capital,” says Prihti, describing the changing atmosphere in corporate funding.

“As the world around us changes, so Sitra adapts its activities and foci to the new circumstances. Sitra’s values remain the same but their contents have to be updated. We have to keep our finger on the pulse of

things all the time. At the moment we are thinking about whether we are sufficiently open-minded in our work here.”

For Sitra’s employees the year was a busy and successful one. Many large projects advanced to the stage where experiments could be expanded or rolled out into a wider arena. *Skills Technology* and *Remote Regions* are examples of these. The number of our international visitors grew again: Sitra’s expertise and Finnish know-how interest decision-makers in both east and west.

“We have now operated a whole year in our new premises in Ruoholahti in Helsinki. Working on different floors has meant that we have had to adjust many of our daily routines. We have been successful in finding functional solutions thanks to the active enthusiasm and innovative thinking of our whole team. I would like to express my warm thanks to Sitra’s administrative bodies and to our partners who have inspired and supported our work so strongly. Throughout a busy year the personnel of Sitra have carried out their work, developed their capabilities and expanded our common social capital resourcefully. My thanks to them all.”

## “Tips for Success from Knowledge and Action”

Sitra's research, innovative projects and training face considerable challenges, namely to offer information and models of action for the planners of Finland's future.

“We provide social decision-makers with important information so that they can develop successful national strategies. We try out new operative models, especially at the interface between the private and public sectors,” says **Kari Tolvanen**.

Sitra's latest research projects seek to attack the structural challenges facing Finland and come to grips with the problems affecting the welfare society, the risk society, culture and social capital.

“We began to address the risks that Finland will encounter in spring 2001. Pilot studies are already under way. Particular structural problems that we wish to study include ageing, changes in working life, and the challenges of regional development; it is these to which we are trying to find solutions.”

Sitra has studied networking since the 1980's. The results have exerted quite an effect on Finnish economic and business policy, on economic research, corporate management and the use of information technology in industry. In the years 2001–2002 Sitra, the Research Institute of the Finnish Economy (ETLA) and its subsidiary Etlatiety Oy will carry out the *Challenges Facing the New Economy* project. This piece of research analyses the dynamics of the economy, charts Finland's transition to the new economy and addresses the challenges facing economic and social policy. The interim report from the project, *The End of the New Economy?*, appeared in October 2001.

According to Tolvanen the special requirements that need to be met when training decision-makers are being charted by means of a genuine dialogue with the levels to be trained. Sitra's large-scale training and development programme *Finland 2015* has produced many new ideas for social use. The six-course programme will run until 2003.

### Workshops as a method to support research

In 2001 Sitra adopted the workshop method as a way



Kari Tolvanen

of supporting research and studies. It is aimed at the fastest possible production of information.

“In academic research you have to use certain methods. If information is needed quickly in order to resolve a problem, then the heavy machinery of traditional research may be too slow,” Tolvanen points out.

“Not only researchers take part in the workshops; they are also attended by experts from various organisations, by decision-makers involved in the field being studied and by hands-on actors. The workshops do not aim at a single truth; it might come up with a number of alternative solutions. On the basis of their results the researchers elaborate a report, which after publication is discussed by special groups in mini-seminars.”

In the year 2001 two workshops were started. One is seeking to find how training courses can provide answers to the challenges posed by the revolution in working life, and the other to identify the alternative trends that face the welfare society.

### New ideas on the test bench

By means of innovative experiments Sitra tests the functional practicality of new models of action evolved to cope with the challenges facing society. Because of the crisis in the world economy high-tech

companies and workers are concentrated to a few growth centres. A large part of the country suffers because of the emigration of young, skilled workers; such migration erodes the tax base and service structure. Even within large towns and cities inequalities and social problems have increased.

“The strategic focus of Sitra’s innovative projects has moved to reducing social and regional inequalities,” says Kari Tolvanen.

“Our projects *Remote Regions* and *Skills Technology* have been proven to be effective. They can now be extended to the whole country. But for this to take place we need new investors and other players.”

“In the autumn of 2001 we interviewed a number of IT companies to find out whether they were

willing to engage in distance working outside Finland’s growth centres. Interest in such working was surprisingly large but the demands on quality are tough. Now we are carrying out four pilot projects to find out what kind of skills are available. We are prepared to set up NetCentres and workshops between employers and distance workers. They may well bring a new impetus to regional development so that people do not need to move to growth centres in search of work.”

In 2002 Sitra is starting an Innoclub in one pilot area which will offer young people an opportunity to develop their own innovations. At the Innoclub they can try out their ideas in practice and carry out background studies.

## THE FINNISH MODEL PROVEN UNIQUE

“The information society has become part of Finland’s international identity. It is not just a new stage of development for us but a milestone of national success,” says **Antti Hautamäki**, quoting from Prof. Manuel Castells’ and Dr. Pekka Himanen’s study *The Finnish Model of the Information Society*, which was published by Sitra in September 2001.

“Among the interesting features of the Finnish model is the fact that in Finland the welfare state strongly supports competitiveness. Offering all citizens a good quality of life and preventing alienation is a way of encouraging growth and does not just put a strain on taxation. Finland has succeeded in creating a successful combination of the information society and the welfare state. The state is a key actor in the information society, and this has a favourable effect on both business and the community as a whole.”

“The Finnish information society has evolved extremely rapidly and attracted increasing international interest. The Nordic model of the welfare state has been able to combine top-class competitiveness with considerable social responsibility. Finland is among the world’s leading countries when it comes to competitiveness. Despite the slowdown in the global economy we have succeeded rather well as far as growth in GDP, market capitalisation and productivity are concerned. The UN’s Development Report 2001 placed Finland as the world’s most technologically advanced country.”



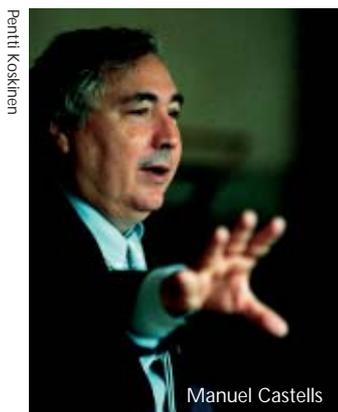
Antti Hautamäki

### What kind of Europe will we live in in 2020?

The development and future of Europe are key themes in Sitra’s research.

“Sitra is a national organisation but Finland’s membership of the European Union has changed the environment in which we live and act. Many things which were previously of national nature are now European. The future for our welfare no longer rests in the hands of Finns,” Hautamäki is quick to remind us.

Sitra has commissioned several pieces of research addressing the European question. A current project is the *Europe 2020*, operated jointly by Sitra and the



Pentti Koskhen

Manuel Castells

Centre for European Policy Studies (CEPS) in Brussels.

“In our research we are concentrating on the eastern enlargement of the European Union, the role of small states within the Union, and interpreting the results of the Union’s summit meetings,” says Hautamäki. “The main focus is on evaluating the near future: what will the European Union be like

after enlargement when new member states are involved in the Union’s decision-making processes and in sharing its resources. Europe 2020 is a project that serves practical needs; it makes use of research results and fresh experiences.”

The first stage of the project will be completed in June 2002.

#### Finland in the face of change

Sitra’s research team outlines the changes of the future. Antti Hautamäki’s report *Finland in the Face of Change* was completed in the autumn of 2001. It

identifies global and local changes in society and the environment and lists the principal challenges facing Finland. In addition to economic factors, Hautamäki also raises the importance of values, culture and social capital for the development of society.

“One of the risks of Finnish development is just the weakening of its social capital. When this is linked to structural problems in Finnish society, such as ageing, unemployment and unfavourable regional development, we will soon be faced with a whole web of problems. What is needed now is structural reorganisation and the courage to build a new welfare state in Finland,” crystallises Hautamäki.

In the projects to be started in 2002 problems to be studied include the economic and social effects of an ageing population, cultural capital as a support for business multiculturalism and immigration policy, the impact of know-how on economic growth, and the problem of reconciling family life and work.

“The Finnish economy needs ethical responsibility, the ability to understand different peoples and cultures, a humane approach, management that respects the individual. We are preparing our decision-makers to brace themselves in time for these problems.”

## SYSTEMIC INNOVATION POLICY STRENGTHENS COMPETITIVENESS

“By international comparison the Finnish innovation system is extremely competitive, among the OECD countries’ best. However, as global competition becomes keener, Finland has to constantly update its know-how. Changes in the environment also necessitate an ongoing ability to reform,” says **Timo Hämäläinen**.

The research programme studying *Finland’s innovation system* was completed in autumn 2001. The areas that the 12 sub-projects of the programme examined included shared expertise, innovations in the fields of biotechnology and information technology, knowledge-intensive services for companies, innovations in low technology, and new labour relations arising out of innovations. The aim was to identify Finnish weaknesses and put forward proposals for improvement.

#### Networking across frontiers

“The programme studied innovations from the net-

working perspective since the best ideas are no longer the preserve of individual inventors working behind closed doors. Today they are much more likely to be the result of networking between many actors – both companies and experts. In order to be able to coordinate information there must exist a joint frame of reference, an overlapping reserve of information and trust, or in other words, social capital. To bring this into existence usually means close long-term interaction and communication.”

Corporate innovative processes are complex and uncertain. According to Hämäläinen the public sector, by supporting networking, can play an important role since networking can give rise to market problems. This means, moreover, that the traditional public-sector ways of operating have to be reformed.

“The rapid and deep-going changes in the environment in which society operates necessitate horizontal cooperation and effective coordination be-

tween different political sectors. For this new tools and solutions are needed.”

### The whole of society needs to be reformed

Finland has traditionally emphasised technological innovations and has succeeded well with them.

“Just being a technological pioneer is not enough in order to be able to succeed in the present global economic crisis, which is changing the environment in which the industrialised nations of the world operate rapidly and dramatically. In addition to economic and technological innovations what Finland needs even more today are social innovations. We have to renew our entire social structure if Finland is to remain in the vanguard of development.”

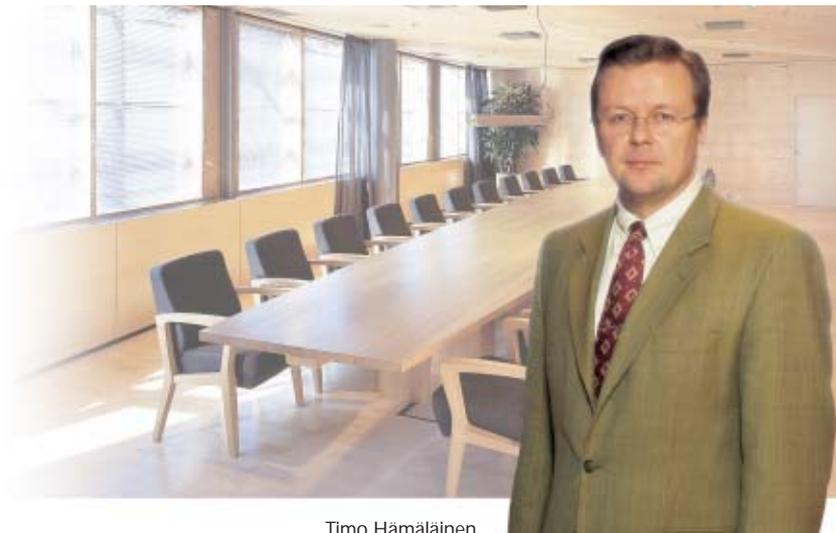
In Hämäläinen’s view Finland needs more research into innovation policy. The spotlight needs to be focussed on distribution and exploitation processes instead of production processes and the social sciences have to be integrated more closely into research.

The results of research into the innovation system can be crystallised in nine challenges:

1) companies must reform their internal technology and organisation; the crisis taking place in their environment means new models of action are needed

2) traditional industries need to be modernised; innovative processes operate differently in old branches from high-tech industries

3) knowledge-intensive services have to be evolved for the business sector; as far as the innovation system is concerned key services are not sufficiently developed



Timo Hämäläinen

4) support is required for networks between companies; how competitive a network is determines how well the companies in it will succeed

5) basic and university research needs reinforcing; innovative networks must be firmly founded on solid information and know-how

6) reform of the education system, especially of the polytechnics, is needed to meet the demands of a rapidly changing working life

7) social alienation needs to be eliminated; the down side of technological progress is increasing social inequality

8) regional cooperation has to be encouraged; innovation policy in a small country has to be supported by cooperation across regional boundaries

9) new tools are needed to coordinate innovation policy; for example, the prediction and evaluation, or benchmarking, of technological trends has not been systematically used in Finland.

## OSKU OFFERS A STRATEGY FOR REGIONAL SURVIVAL

In early 2001 Sitra initiated the *Remote Regions* (OSKU) development project. Its aim is to bring the information society to local inhabitants of different parts of Finland on their own terms. OSKU makes use of the results obtained from a similar project carried out in Northern Karelia in 1998–2000.

Twenty-one regions from around Finland applied to take part in the project; they are remote regions suffering from outward migration and city areas whose inhabitants are threatened by alienation. Of these 21

the following were selected: the Pieksämäki region, the Turku archipelago, Northern Lapland, Kainuu, Eastern Uusimaa, Padasjoki and two suburban areas, east Turku and Maunula in Helsinki.

OSKU is Sitra’s largest project of all time. As principal provider of funding Sitra’s share over the years 2001–2003 will amount to about 10 million euros. Regional organisations, such as local authorities and local businesses, are also participating in the funding operations.



Kari-Pekka Mäki-Lohiluoma

### OSKU relies on neighbour helping neighbour

“In the OSKU project the information society cannot be forced on a region from above or as a ready-made product. The national network is made up of the local virtual society, the heart of the regional information society. The inhabitants themselves must provide the content. They discuss and move about the network on their own terms,” says **Kari-Pekka Mäki-Lohiluoma**, who heads the project.

“A citizens’ network is set up with the aid of different centres where each inhabitant has free access to e-mail and the possibility of creating his or her own Internet pages.”

Computer tutors from among the regionally unemployed train the locals in how to use the network. These tutors know the region, the people and conditions and are best suited to guide others.

“Continuity is guaranteed by selecting OSKU project leaders, training groups and educators from the local population. They speak the same language and can empathise with the people they are teaching. In this way the threshold to learning is kept at a minimum.”

### Many participants in a contents project

The OSKU projects try to gather together local IT skills and to set up viable IT patterns of behaviour in collaboration with the public, private and third sectors.

The contents projects support regional projects. For example, in the east of Turku an information-society project is being formed for immigrants and in Maunula the project is aimed at parishioners and is being put into practice in cooperation with the local church. In the Pieksämäki region services intended for families with children are being developed in collaboration with the Mannerheim League for Child Welfare. Small parishes in the eastern part of Uusimaa are being networked together. In the Turku archipelago and in the Padasjoki projects services for summer visitors are being developed together with local businessmen. A special project in small-scale enterprise is also being planned for small companies.

OSKU offers openings for citizens’ creativity.

“We rely strongly on the inhabitants working out for themselves what traditional activities could be improved with the help of information technology. We are open to all ideas. I think that OSKU will lead to the setting up of regional networks in which several local authorities are involved. These can then be used to create virtual centres for administrative services.” That is Mäki-Lohiluoma’s vision for the future.

## FROM INTERACTIVE TRAINING TO THE CHALLENGES OF TOMORROW

“In its training programmes Sitra aims to keep decision-makers abreast of the most important future trends from both a national and international perspective. We want to make sure of their ability to cope with a changing world,” says **Tapio Anttila**.

The *Finland 2015* training programme aims at developing the knowledge, skills, preparedness and networks of the highest level of decision-makers

when it comes to matters affecting the future of Finnish society. Both participants and speakers at seminars represent the top of their field. The programme comprises, all in all, six courses to be held over the period 2000–2002 together with the final plenary seminar in 2003.

Through their own expertise the participants will influence how the work progresses and its content.

At the same time they will profit from each other's insights, opinions and inspirations as well as those of the top experts addressing the course. The network-based learning environment FutureNet will provide support for the programme between seminars and in preparing the final report.

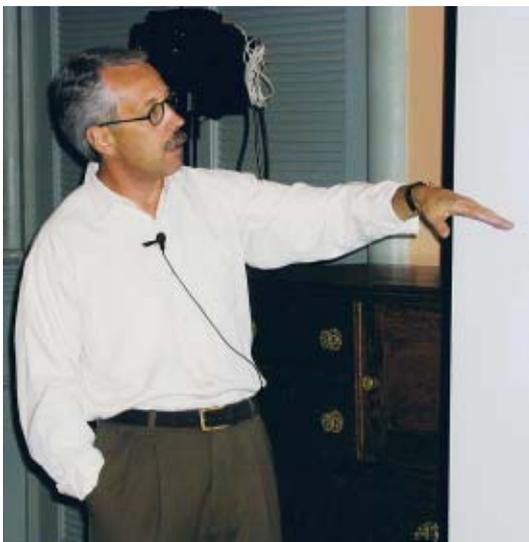
Courses 3 and 4 started in the year 2001. Those invited to attend the programme included leading decision-makers from the fields of politics, public administration, business, interest groups and science.

"The third course completed its report in June 2001. It concentrated on exploiting the achievements of information technology, the challenges of know-how and training, the balance between a humane life and the stresses of our increasingly competitive society, incentives for enterprise, and a good environment," says Anttila.

"The fourth course emphasised the importance of security and healthy values in future development and solutions. It considered the factors contributing to Finland's competitiveness, the challenges facing the welfare state, entrepreneurship, know-how, innovations and decision-making. The report drawn up by the fourth course was published in January 2002."

Courses 1–3 held their first seminar in Washington DC in the USA. The first seminar of the fourth course was held in early September in Silicon Valley. The principal topic was innovation systems.

Course 5, due to take place in spring 2002, will meet for its first seminar in Beijing, China.



The fourth course of the Finland 2015 programme took place on the West Coast of the USA in Silicon Valley. Professor Gary Hamel underlined the need for radical innovations.



Tapio Anttila

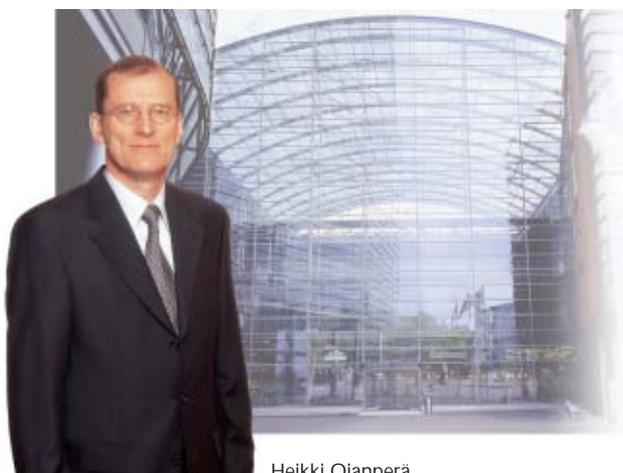
"The significance of the Far East and especially of China for Finnish business has grown considerably. China recently became a member of the World Trade Organisation and its importance for global development will continue to increase," says Anttila, listing the reasons for the choice of new geographical venue.

#### Russia's future-makers will learn from Sitra

In autumn 2001 Sitra arranged the first course for Russian decision-makers called *Russian Future-Makers in Finland*. As part of the course they became acquainted with how Finnish society and its different institutions operate. About a score of 25–40-year-old decision-makers and experts from both public and private sectors, from interest organisations and universities attended the week-long course. The new generation of influential figures debated with Finnish experts, did group work and made visits to different companies. The group visited Oulu to discover how this small northern community has built up through cooperation at different levels a successful and world-renowned technological miracle.

"We tried to initiate a genuine dialogue with the Russians. We wanted to offer the course participants a concentrated dose of knowledge about Finland that would increase their understanding of us and open up an opportunity to set up networks with Finnish society. The course culminated in a meeting with the president of Finland, Tarja Halonen."

## NEW TOOLS FOR SMEs



Heikki Ojanperä

The *Skills Technology* (Taitek) project launched by Sitra in 1999 has had three pilot studies in the sectors of bags and leather products, musical instruments and interior design. Its aim was to provide an incentive for Finnish artisan businesses through entrepreneurial support and networking.

“In spring 2001 Sitra and some Finnish bag companies employed professional designers to create new products in line with trends in international demand. The first result of the project was the Easy Driver family of golfer-style products for both the domestic and international market,” says **Heikki Ojanperä**.

“We worked out a business strategy with the entrepreneurs and discussed the need for an agent – a flagship company – to handle international sales, marketing and logistics. Our work is continuing in 2002.”

In spring 2001, Sitra and a group of Finnish manufacturers of musical instruments conducted a European survey to evaluate the international recognition and export potential of Finnish-made musical instruments.

“There is demand for high-quality Finnish-made musical instruments but the manufacturers are not yet ready to participate in an international project. We agreed to suspend the project for the time being,” says Ojanperä.

The interior design project is still in progress the focus being the design of congress and conference facilities on the turnkey principle. Five companies and one interior design agency are involved so far.

An extensive analysis of the German market was conducted last autumn to find a suitable partner. The aim is to sign a partnership agreement during 2002.

### Traditional SMEs could be an international success

The encouraging results of the Taitek project have spurred Sitra's decision to support modernisation of traditional SME operations.

“The internationalisation of domestic markets affects all small and medium-sized enterprises. Partnering and networking have become increasingly important success factors,” Ojanperä reminds us.

“Finnish small and medium-sized enterprises do not yet know how to exploit all the opportunities offered by new technology as a tool for improving their competitiveness. To help them we first have to identify a clear business need and then draw up a plan for companies and networks to see what kind of technological support they need.”

SME networks with good prospects for further development and funding were charted in autumn 2001. Negotiations on new funding models have been initiated with Finpro, Finnvera, the Ministry of Trade and Industry and their Employment and Economic Development Centres, the National Technology Agency (Tekes) and Suomen Teollisuussijoitus Oy (Finnish Industry Investment Ltd.).

“Our aim is to build a practical form of cooperation in which each public partner will play his own specific role,” says Ojanperä.

“SMEs cover a wide geographical territory all across Finland. Successful SMEs bring jobs and prosperity to the local community. In this respect our project also supports regional development,” adds Ojanperä emphasizing the project's importance within a broader social framework.

## “Promising Companies Need Help over the Recession”



Olli Lindblad

Since the autumn of 2000 the venture-capital environment has changed markedly. The American market has been pessimistic. In Europe the euphoria over the technology field has evaporated.

“The sudden halt in the growth of the American economy affected the venture-capital field as much as it did the stock exchanges. These problems were also reflected in Europe. Here the negative effects were not, however, as drastic as in North America,” says **Olli Lindblad** of the year 2001.

In Finland, too, the market abated. Opportunities for exiting weakened considerably and the yield from funds plunged. Finding new sources of funding was difficult.

According to Lindblad the market situation for Sitra’s venture-capital activities has not been reflected in the number of projects but certainly in the quality. Sitra’s portfolio of projects remained at the same level as the preceding year, as did, too, the level of direct investments. The main changes were encountered in the number of exits; there were considerably fewer companies than the previous two years.

As corporate predictions did not materialise, the turnover of Sitra’s portfolio slowed down and the need for continued funding on the part of the portfolio companies increased.

“The year 2001 was characterised especially by the increased need for bridging funds since the major sources of finance were either delayed or dried up altogether,” says Lindblad.

### A poor year for ROI

“The present economic recession will be reflected in Sitra’s corporate funding for at least a couple of years. Exit yields from both direct investments and funds will have to wait, and the return from portfolio companies will be smaller than in the previous two good years. One positive thing, however, is that the evaluation of new objects for investment may be expected to return to a more realistic level,” says Lindblad.

“It is important at this time to administer the portfolio in such a way that promising enterprises get the finance they need over the recession and that Sitra exits in an ordered fashion from those companies whose potential for growth are not sufficient in normal market conditions. This is a demanding task.”

Lindblad says that the conditions imposed by venture-capital investors have sharpened markedly.

“Companies’ expectations have fallen by 50–80 per cent for both first-time and continued funding. In addition investors almost always protect their own position by liquidation preference and anti-dilution clauses.”

The recession has made people more careful.

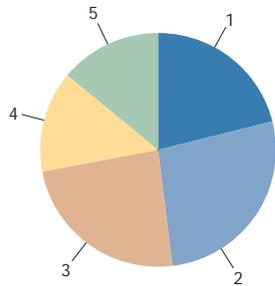
“We shall be taking a much closer look at applicants’ business prospects. Each enterprise will be expected to provide a clear picture of its business plan, a realistic timetable for when it expects to exit, and the prospect of a satisfactory return,” Lindblad points out.

“The ups and downs on the markets will not, however, noticeably alter Sitra’s basic strategy when it comes to providing venture capital. Our task continues to be to get started and to develop internationally competitive and profitable business for Finland.”

### A look at new financing possibilities

Sitra’s corporate funding is in the hands of four teams of experts: technology, Life Sciences, regional oper-

**Investment portfolio  
by stage of development  
31.12.2001**



	no of companies	€ M	%
1. Seed	23	22.7	21
2. Start-up	35	28.5	27
3. Early growth	38	25.9	24
4. Rapid growth	20	14.8	14
5. Exit/transition	5	14.7	14
<b>Total</b>	<b>121</b>	<b>106.6</b>	<b>100</b>

ations and PreSeed. Sitra's collaboration with both public and private investors has been intensified. About a half of Sitra's portfolio consists of syndications.

"Sitra's investments are always associated with collaboration. We gather experience and seek practical models for cooperation," notes Lindblad.

"In the field of technology IT has suffered most. We have started to chart new technological fields and have set in motion new ways of developing enterprise. In the Life Sciences field the year under review was relatively stable because

of the long-term perspective of these operations. It may be more than ten years before some of the companies in the Life Sciences are ready to exit."

The privatisation of and structural changes in the network of regional funds have progressed according to plan in Lindblad's view. In the coming years Sitra will have exited either entirely or to a large

extent from owning fund-management companies. Regional seed consortia have stabilised their activities.

"We have made a new conquest in our PreSeed activities with the setting up of our LIKSA and INTRO services. They are aimed at funding business plans and make possible the following stage of financing when commercialisation starts. Sitra backs up the commercial exploitation of the universities' and research institutes' research results. We also strive to influence political decisions, legislation and agreements that better protect the ownership of intangible rights and the distribution of the profits they generate."

Sitra is involved in the Innopoli II project, which is setting up a company accelerator designed especially for IT companies in Espoo.

"In this Sitra combines its role as a financier of newly started companies and provider of first-time capital. Sitra is a major investor in the accelerator and cooperates in this with LEL Työeläkekassa and the city of Espoo," says Lindblad, giving one more example of the importance of Sitra's investment activities as an architect of Finland's future.

## NEW MODELS FOR INTERNATIONALISING HIGH-TECH COMPANIES

The strategy of the technology team has been to be a leading financier and developer of start-up enterprises in the high-tech field. It concentrates on those areas where private investors are not yet prepared to provide funding alone.

"Sitra's portfolio contains many technology companies. In the year 2001 we started to chart other research-based projects based on top-level technological know-how that might lead to viable commercial enterprises. For example, we studied what know-how is available in the fields of environmental and energy technology, microtechnology, optoelectronics and photonics," says **Anu Nokso-Koivisto**.

The number of new companies applying for funding remained the same as the preceding year. However, Sitra and other providers of venture capital have been more critical towards those projects that could not provide satisfactory evidence of their competitive advantage, earnings prospects and customer potential.

"Technology companies in difficulty applied for funding even though their economy was weak. The companies' values were still somewhat over-estimated considering their future prospects. From Sitra's viewpoint it is important to ensure continuing funding for viable companies with the potential to grow."

The technology team's many funding objects included Geniem Oy, which produces PDA software, and Eigen Value Oy, which develops programs for optimising telecom operators' capacity.

Sitra has invested in both international and Finnish venture-capital funds for several years. When it comes to decisions of this sort the most important criteria in addition to return are practical cooperation and the possibility of helping Sitra's own portfolio companies to go international.

### SourceCode Finland to help producers of software

"Finland has a great deal of technological thinking

and know-how in information technology but companies are not as good at turning their ideas into practical products, and then selling and marketing them. Success necessitates special skills acquired via experience,” says Anu Nokso-Koivisto in relation to the history of the development organisation, SourceCode Finland. This unique service, specially tailored to meet Finnish requirements, started at the beginning of 2002. Sitra as principal partner together with other private investors who concentrate on high-tech growth act as godparents and associates in this project.

SourceCode Finland Oy helps Finnish growth companies that focus on innovative software to succeed in international markets. It acts in conjunction with technology centres and incubators by offering companies specialised international know-how in the software business.

“SourceCode Finland looks for and selects companies with prospects of expanding whose innovations have international market potential. These companies are then provided with almost everything built around their product and the core team,” says Anu Nokso-Koivisto.

### From research to funding and development

The largest research project is one that has been started together with Etlatieto Oy and the National Technology Agency (Tekes), namely *Challenges for the financial system in an era of technological and industrial change*. Money provided by Sitra and Tekes is being used to study what expectations newly started companies have of the financial system. Both Finnish and international research resources are being enlisted to assess how the public sector in particular needs to evolve. “No such analysis has been carried out anywhere else in Europe,” claims Nokso-Koivisto.

A second important project is the business planning competition Venture Cup. This was started in the year 2000 and in the year under review it was extended to cover the whole country. The main sponsors are Sitra, Tekes, the T & E Centres (Employment and Economic Development Centres) of the Ministry of Trade and Industry, and private investors.

### Cooperation yields new services

Cooperation with other public financial institutions and service companies was developed further. The



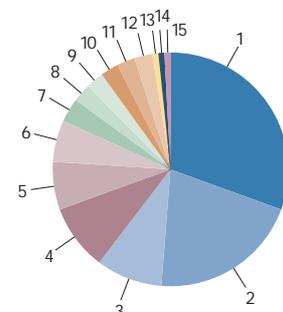
Anu Nokso-Koivisto

single most important project was the product and service portal [www.yrityssuomi.fi](http://www.yrityssuomi.fi) directed towards entrepreneurs. It facilitates the task of companies planning new enterprise or looking for funding and development aid in locating the services of six public organisations. Sitra, Finpro (Finnish Business Solutions Worldwide), Tekes, Finnvera, the T & E Centres and Suomen Teollisuussijoitus Oy (Finnish Industry Investment Ltd) are involved in developing this project.

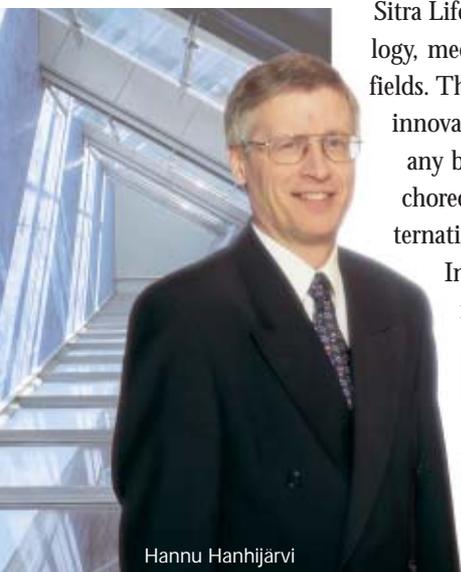
Cooperation with Tekes was developed further. The technology team takes an active part in Tekes' technology programmes which attract the team's investment interest. In 2002 Sitra will look at large companies in order to chart that area of their technological potential that does not form part of their core competencies but which might nevertheless give rise to new business if hived off.

### Investment portfolio by branch 31.12.2001

	no of companies	€ M
1. Medical/health-related	37	45.6
2. Computer-related	25	21.7
3. Industrial products and services	11	4.8
4. Other electronics-related	11	7.2
5. Biotechnology	8	9.9
6. Consumer-related	7	2.5
7. Chemical industry & materials	4	2.4
8. Agriculture and silviculture	3	0.9
9. Construction	3	1.5
10. Internet-technology	3	3.4
11. Other services	3	1.8
12. Telecommunications	3	2.8
13. Financial services	1	0.5
14. Other production	1	1.5
15. Environmental	1	0.1
<b>Total</b>	<b>121</b>	<b>106.6</b>



## THE BIOTECHNOLOGY FIELD NEEDS LARGER ONE-OFF FUNDING



Hannu Hanhijärvi

Sitra Life Sciences concentrates on biotechnology, medical science and other closely linked fields. The aim is to ensure that the important innovations made in this field in Finland and any business based on them are firmly anchored in Finland before they are released internationally.

In the year 2000 the amount of money invested by the Life Sciences unit doubled compared with the preceding year. This growth tailed off in 2001 but remained at the same high level.

“This is the level that Finland needs to maintain for newly started life-sciences enterprises,” notes

**Hannu Hanhijärvi.**

“The number of investments actually fell but the amounts of our non-recurrent funding grew. This is the right trend. In general the Life Sciences portfolio is made up of many companies and quite small sums. Companies in the biotechnology field now get enough funding to be able to achieve their goals. Their work is of a long-term nature which ties down a lot of capital.”

### Quicker portfolio turnover

The Sitra Life Sciences portfolio comprises about 50 companies. There are now more companies from the Helsinki region than earlier.

The capital markets quietened down in 2001. According to Hanhijärvi the process of involving other international investors has become slower and more difficult. Companies’ predictions have fallen.

“The focus of attention has been on continuing funding. The pressure for larger units is growing because the markets need more mature and stronger companies. Not a single biotechnology company went public in Finland in 2001. We are trying to increase the turnover of the portfolio so that Sitra can exit from its companies in a more focussed fashion. We are also aiming to make our activities more efficient by optimising our organisational structure,” says Hanhijärvi.

“Our international cooperation has succeeded well. We are evaluating a number of new projects. In 2001 we invested in four international funds in the biotechnology field. Our strategic partners are Mer-

lin Biosciences, Apple Tree Partners, HealthCap and Natexis Ventech. Together we are looking for suitable places for a listing and the right timing for our portfolio companies. Very small or one-sided companies requiring technological complementation mean a lot of work. To help them we are looking for new investment partners in both Scandinavia and Central Europe.”

### eHealth – a new tool for health care

The structure of health administration is likely to change dramatically in the next ten years. The population is getting older, and chronic disease will become more common. New medicines and new forms of treatment will appear on the market. Citizens’ need to know about health care will grow. Information technology offers both citizens and companies in the field new opportunities when it comes to health care.

Sitra started its *eHealth* project in the year 2000. Its purpose is to evolve in the course of the next two years a product and service concept that will function flexibly and productively for both public and private providers of health services. If the project is successful, it will save on the costs of health care and improve the quality of the services provided.

As one of the architects of the Finnish welfare cluster Sitra concentrates on financing information management and new business; it encourages companies to set up networks both in Finland and internationally.

“We have become a partner in the leading Swedish company MedHelp AB, which offers advisory services in health care. Its technology is being transferred to Medineuvo Oy, a company set up by Sitra that started operating in autumn 2001. Medineuvo’s service is comprised of round-the-clock telephone consultations which provide patients with information about health and illness. The aim is to serve them quickly and effortlessly and guide them directly to the service they need during the one telephone call. The TelefonAkuten service line in Stockholm has had good experience of this kind of service,” says Hanhijärvi.

“In Finland it is high time we created a method that will make life easier for a patient to gain access to the service he needs.”

## PRESEED BUILDS A BRIDGE BETWEEN A BUSINESS IDEA AND THE CAPITAL MARKETS



Risto Kalske

Sitra and Tekes set up the PreSeed funding service in May 2001. The service is a two-phase process that helps good business ideas to gain access to capital markets. The first phase, LIKSA, the financing of a business idea, offers an opportunity to construct a good intellectually balanced business plan. The second phase, INTRO, creates a framework within which entrepreneurs can meet investors. It replaces Sitra's earlier Matching service.

### For the benefit of entrepreneur and investor alike

"PreSeed allows entrepreneurs to prepare to meet the capital markets on their own level. At the same time it provides investors with a greater degree of certainty for their funding decisions," promises **Risto Kalske**.

He estimates that every year in Finland there are 400–500 projects that can derive benefit from the PreSeed service. Decisions on the financing of a business idea are made on the basis of applications. During the first half of the year the LIKSA jury handled 160 applications. Of these about 40 were granted

LIKSA funding. The first funding negotiations for the INTRO service have now been held with private investors.

### LIKSA refines the flow of projects

Up to 33,000 euros of LIKSA funding are available to pay for the best experts in the world to provide the kind of information needed by the originators of an idea when their own expertise is insufficient. The LIKSA applicant's business concept must meet the requirements of Sitra's and Tekes' funding principles. There has to exist the prospect of important international growth.

### INTRO – the gateway to capital funding

The purpose of the LIKSA service is to find a practical financing solution for a newly started company either through business angels or institutional investors. It offers investors a centralised service for business ideas.

"Sitra is ready to increase its own PreSeed funding in order to encourage capital investors to latch on to companies in the early stages of their existence."

LIKSA is assessed by INTRO. All projects funded by LIKSA are offered an opportunity to join the INTRO programme. INTRO is open to other companies whose ideas have advanced much further. The main considerations are a comprehensive business concept and a balanced team committed to that concept.

Investors interested in newly started companies can register with the INTRO service. The main parts of this are a list of investment objectives that can be seen on the Internet, company presentations and the coordination of syndications.

"The first PreSeed phase will continue until June 2003. Then the efficiency of this service will be evaluated and a decision made on whether to continue it or not."

## International brain research moves into Nexstim time

■ It is possible to activate the nerve cells of the brain by directing a strong magnetic pulse at them. When an exactly positioned pulse is combined at the same time with measurements of the brain's electric activity, it is possible to follow the way messages are transmitted within the human brain. The method is one of the most outstanding neurophysiological innovations of the last few decades.

The Helsinki firm, Nexstim Oy, is developing a unique system for brain mapping and the future treatment of patients. The idea grew out of an academic study made by the chairman of the board, *Risto Ilmoniemi* PhD, in the BioMag laboratory of the Helsinki University Central Hospital over the years 1994-2000. The company was set up as part of the Finnish Technology Agency's TULI project in summer 2000 in order to develop, produce and market the equipment.

### A three-part system

The system is made up of three parts sold separately. A specially constructed apparatus for measuring the electric activity of the brain compatible with a magnetic stimulator (high-resolution EEG) is ready. The product will be made public at the 8th International Conference on Functional Mapping of the Human Brain in Japan in June 2002.

The second part is an automatic positioning device by means of which magnetic stimulation can be directed extremely accurately to any part of the brain. The device shows in real time a cross section of the part of the brain on which the stimulation has been targeted. The positioning system can also be used to with other manufacturers' stimulators.

The third part, a computer-controlled magnetic stimulator, will be launched on the market in 2003. It will then be possible to begin supplying the complete system. The system is the first commercial apparatus with which the activity of the brain can be measured and the pathways between the different parts of the brain mapped without causing the patient any discomfort.

"Magnetic stimulation is a well-known therapeutic method and there are already thousands of hand-held magnetic stimulators on the market. With our system, however, the impulse can be directed with the aid of a computer, and a mechanical arm holds the stimulator in the right

place. A large part of the technology has been patented," says Nexstim's managing director, *Jari Karhu*, who is a neurophysiological specialist.

Nexstim employs a number of experts in the fields of biomagnetism, neurophysiology and medicine. All the components of the system, with the exception of the infra-red camera and computers, are made in Finland.

The system has several possible diagnostic uses: neurosurgical preliminary examinations, locating and treating the seats of epilepsy, senile diseases and dementia, ischaemic attacks and neurological diseases affecting the ability to feel and move.

"We do not yet know the full range of therapeutic uses for our invention, but we expect them to be many. Canada and Israel have recently approved the use of magnetic stimulation for serious depression. Our equipment offers a more humane alternative to electric-shock treatment, which requires anaesthesia and causes loss of memory. Potential customers include all hospitals that treat patients suffering from depression."

### Development in cooperation with the customer

Nexstim has world-wide markets. In the first instance the system will be sold for research purposes.

"Large brain research institutions and teaching hospitals - for example, Harvard, the Montreal Institute of Neurology and the University of Tokyo - have already shown an interest in the system. At present we have a clear technical edge over our competitors and we want to expand in the field of brain stimulation to become the world market leader. Our aim is to produce reliable tools for the study and treatment of the brain that are user-friendly, indubitably safe and maximally effective," says Karhu.

"The marketing of our brain mapping system is one of the main challenges facing us in the immediate future. The most important is to maintain an ongoing interaction with the customer. When top researchers use the system, they make new discoveries and give us an impetus for new ideas. Deep and confidential cooperation with the users is absolutely essential."

## IST health technology – an aid to security and welfare

■ Ageing and illness make it difficult for people to continue living at home. But people living alone may face surprising and frightening situations in their everyday lives. Unfortunately relatives do not always find it possible to care for their loved ones on a daily basis. Nonetheless, everybody wants to live at home as long as possible.

IST International Security Technology Oy is a Helsinki company in the field of health-care technology set up in 1993. It has developed the world's first cordless security device, the Vivago welfare bracelet, for the old and long-term ill who live alone. With the aid of the pressure button the user can call for help. The bracelet automatically sends out an alert when the user himself is not able to call for help – if he is unconscious, for example, or unable to move because of a fall.

With the aid of the patented technology physiological measurements can be taken and the results analysed reliably and automatically around the clock. A microprocessor sends a radio signal with the measurements and analysis results to a base unit installed in the home. This technology is unique throughout the world.

The memory of the base unit contains a normal profile of the user's active level and it can then compare this with the signals it receives from the user's bracelet. If the bracelet detects a period of prolonged unusual immobility, a call for help can be transferred via the telephone network to a pre-selected number as either a spoken or text message. A speech link can then be established between the base unit and the receiving telephone with the aid of which the user of the bracelet and the person who has received the call can talk to each other.

The system can be linked up to an automatic surveillance unit by means of which information about a person suffering from dementia who leaves the house can be detected.

"Our system is unique and clever; nobody can dispute its usefulness," says *Aage Moustgaard*, managing director. Its importance from the social point of view is proven by the fact that several life-insurance companies came in as owners together with Sitra only a couple of years af-

ter the company was set up.

### A comprehensive security measure for institutional care, too

Together with the Vivago home system IST has also launched three adaptations for sheltered accommodation and hospitals. They can be combined.

IST's security system offers basic security for the patient and is of help for the nurse. The surveillance solution is of particular use when caring for dementia and mental patients.

An activity surveillance solution is planned for patients requiring special care. The system makes it possible to monitor the quality of sleep and the effect of medicine and rehabilitation with the aid of a graphic activity curve.

If the staff also wear Vivago welfare bracelets, the nurses can immediately alert others to the need for help in the event of an accident or when they themselves are faced with a dangerous situation, if assaulted, for example.

The IST system is already in use in Finland, Sweden, Britain, Ireland, France and Japan.

"Today a large part of our turnover comes from sales to homes for the elderly and care institutions. However, I firmly believe in sales to the general public, too. In the OECD countries there are 220 million people over the age of 65. Every third Finn will be in this category in twenty years time. In the future children will buy a security bracelet for their parents as an additional safety precaution," says Moustgaard.

IST continues to conquer the world with its ideas and thinking. One of the company's employees is at present engaged in setting up a sales network in Germany.

"We have carried out a market survey in the USA and will start selling there in 2003. Spain is also an interesting area. Many security telephones are sold there," says Moustgaard with an eye on the future.

## SITRA'S EVENTS 2001

### PRESS CONFERENCES

Finland 2015: Publication of final report from Course 2  
11.1.2001

Seminar and Publication of "Opening Doors – Cultural Diversity in Finnish Business"  
18.1.2001

Publication of "Globalisation and Citizens' Criticism"  
15.2.2001

Publication of Euro handbook  
3.4.2001

Announcement of PreSeed funding service  
3.5.2001

Publication of report "Outside the Mainstream. Difficulties Encountered by Young People in the 1990's"  
Youth network/Youth Research Society and Sitra  
2.5.2001

Finland 2015: Publication of final report from Course 3  
20.6.2001

Publication of "Finland in the Face of Change – A Report on Finland's Challenges"  
30.8.2001

Publication of "The Ingredients of the European Social Model"  
18.9.2001

Publication of "The Finnish model of the information society"  
26.9.2001

Publication of "The End of New Economy?"  
10.10.2001

"Transformation of the Finnish innovation system – a network approach"  
Final seminar and final report  
17.10.2001

### SEMINARS

Finland and e-Europe seminar Spearhead Network and Ministry of Transport and Communications  
23.2.2001

Final seminar of SPIN technology programme  
15.3.2001

Research seminar on the National Innovation System  
15–16.3.2001

Taitek/Leather goods and handbags Seminar and prize ceremony of the bag design competition  
14.5.2001

Economic policy panel. Prospects and challenges for the Euro region Organised by Sitra and the Finnish Economic Association  
17.5.2001

Experiences with National Technology Foresight Studies – discussion  
18.5.2001

Virtual Skills School – discussion  
21.8.2001

A new approach to developing welfare services – seminar Ministry of Trade and Industry, Ministry of Social Affairs and Health and Sitra  
6.9.2001

The European Union, Russia and their Neighbours – lecture Europe 2020 project  
29.10.2001

Regional development and competitiveness – seminar Spearhead network and the Finnish Information Society Development Centre (TIEKE)  
31.10.2001

EU Enlargement and Labour Market Mobility – seminar Organised by Sitra and the Finnish Economic Association  
13.12.2001

### CONGRESSES

Dreaming for the Future Sitra and the University of Art and Design Helsinki/Future Home  
17–19.5.2001

2001 EVCA Technology Investment Conference  
17–19.10.2001

### FAIRS

GIMME 2001 gift fair Sitra Taitek/Handbags and leather goods  
5–6.9.2001

BIOTEC 2001 fair Sitra's Life Sciences  
12–13.9.2001

### TRAINING

Finland 2015, Course 3  
3–8.3.2001 Washington DC  
1–5.4.2001 Moscow, Berlin  
7–8.5.2001 Helsinki  
4–5.6.2001 Sannäs

Finland 2015, Course 4  
8–14.9.2001 San Francisco, Silicon Valley  
7–11.10.2001 Moscow, Berlin  
5–6.11.2001 Helsinki  
3–4.12.2001 Sannäs

Economic Policy 2000+, Course 5  
14–18.5.2001, Helsinki, Vanajanlinna

Economic Policy 2000+, Course 6  
19–23.11.2001 Helsinki, Sannäs

Russian Future-Makers in Finland  
22–26.10.2001 Helsinki, Oulu

## SITRA'S SUPERVISORY BOARD AND BOARD OF DIRECTORS

### Supervisory Board

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Chairman

Virpa Puisto, MP  
Vice-chairman

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Antero Kekkonen  
Mauri Pekkarinen  
Martti Tiuri  
Kari Uotila  
Ben Zyskowitz

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Anton Mäkelä, L.I.B

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Sitra

### Secretary

Kirsti Uotila, Executive Assistant  
Sitra

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Tapio Anttila, Director (Training)

Hannu Hanhijärvi, Director  
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– Life Science Companies)

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Marja-Leena Hilke,  
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Timo Hämäläinen, Director  
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Risto Kalske, Director  
(Corporate Funding – PreSeed)

Kari Kankaala, Director  
(Corporate Funding  
– Commercialisation of Technology)

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(Corporate Funding – Regional Funds)

Anu Nokso-Koivisto, Director  
(Corporate Funding – IT &  
Technology Companies)

Heikki Ojanperä, Director  
(Network Development and Finance)

# Board Report for the year 2001

The 34th year for Sitra, the Finnish National Fund for Research and Development, which was set up in 1967, was both lively and eventful. Sitra continued its development with new operations and concentrated more than ever before on major projects.

The upswing in the world economy that had continued for more than ten years came to an end, largely because of economic problems in the USA. The strong growth in production that had begun in the mid-90's led eventually to both the private sector and the entire economy being swamped by debt. With increasing deficits in both the balance of payments and the current account the American economy's locomotive effect for the rest of the world ran out of steam.

Economic prospects for the global economy became bleaker than ever as a result of the terrorist attacks on the USA in September. Subsequent to this event both consumer and corporate behaviour became much more cautious, and the first signs of this pessimism abating did not appear until the last weeks of the year. The Federal Reserve Bank tried to ease monetary policy by reducing its lending rate during the year to a record low.

Economic growth tailed off not only in the United States but also elsewhere in the world such as Europe, Asia and Latin America. Poorer exports and declining domestic consumption increased problems in Europe, and the European Union's economic growth slowed sharply compared with the preceding year. The Japanese economy continued to weaken since the process of restructuring the private sector and the financial markets was still unfinished. In Asia domestic consumption in the two large economies, China and India, helped both countries' economies to grow in 2001 despite the difficulties experienced elsewhere in the world. Economic growth in Russia was also buoyant, largely as a result of higher production of energy. On the other hand, economic difficulties considerably reduced the growth of those Central and Eastern European countries with close

economic ties with the European Union.

The international stock markets were experiencing a decline even prior to the terrorist attacks in September especially in the sectors of information technology and communications. The fall steepened immediately after the attacks. The decline was short-lived, however, and investors' confidence raised share prices to their pre-attack levels by the end of the year. The rise in oil prices also came to a sudden standstill.

The Finnish economy sagged in the spring as exports shrank and investment decreased. However, thanks to exports, which accounted for almost a half of GDP, foreign trade continued to show a surplus. The cyclical picture changed, particularly in industry, for the worse, and the economy showed signs of a recession. Nonetheless, the national debt declined and income exceeded expenditure.

In accordance with its strategy Sitra is trying to influence trends in Finnish society so that by the year 2010 Finland will be among the three most successful countries in the world. To achieve this goal Sitra carries out research, innovative projects and training together with corporate funding. During the year under review a new form of operations was started to develop and finance networking.

The number of Sitra's funding decisions fell by 36 per cent compared with the previous year's record. Disbursements following upon decisions made during the year or earlier amounted to € 52 million, in other words 18 per cent more than the preceding year.

Sitra's financial resources have multiplied during the last ten years principally because of the appreciation of the Fund's endowment and thanks to capital gains. The result for the year 2001, however, was a loss because of depreciation on its invested assets and the poor return on capital investment. Nevertheless, Sitra's economic position remains strong and provides a strong base for financing its operations in the future.

## RESEARCH, INNOVATIVE PROJECTS AND TRAINING

The primary purpose of Sitra's research, innovative projects and training is to identify the changes facing Finnish society and to create a knowledge base and models for developing a national strategy for success.

The principal aim of Sitra's research is to strengthen the awareness of decision-makers and the general public of the challenges facing Finnish society and to help them evolve strategies and guidelines to cope with new circumstances. Innovative projects create networks for promising new fields of business that promote the success of the national economy and the welfare of the country's citizens. It also tests new ways of working that will improve the cost efficiency of the welfare society. By means of its training programmes Sitra strives to ensure a satisfactory level of skills among societal decision-makers, civil servants and representatives of the media in a changing world.

### Research

During the year under review the far-reaching project on the innovation system was brought to completion. The results have been collated in a report, Transformation of the Finnish Innovation System. The report stresses the need to develop the entire innovation system and to reinforce interactive networks. The research programme with its publications is the most thorough study of the innovation system ever made in Finland.

Sitra's work of building the Finnish information society was continued by Manuel Castells' and Pekka Himanen's study of the Finnish model of the information society. The report on this project was published in the autumn. Its principal statement is that the Finnish model of the information society has successfully combined competitive information and communications technology with a welfare state. The report also analyses the challenges that the Finnish model faces in the future. Since the Finnish information society has inspired so much interest abroad an international publisher is being sought for the report's English-language edition.

During the year the Europe 2020 project continued. This is being carried out in collaboration with the Centre for European Policy Studies in Brussels. The focus of Sitra's research is the enlargement of the European Union and the role of small states

in the Union while the CEPS concentrates on analysing the summit conferences and questions concerning the Union's structure. The project published three bulletins in Finnish in 2001.

The year under review also saw the publication of a report on the social dimension of Europe. It was entitled Euroopan sosiaalisen mallin ainekset (The Ingredients of the European Social Model) and studies how the social dimension is changing as Europe becomes more integrated. The report underlines the growing significance of the social model concept in the European Union's development goals in the next few years.

Experiences with National Technology Foresight Studies is the name of a research programme that analyses a number of national prediction projects (the Netherlands, Ireland, Great Britain, Italy, Austria, Japan and Sweden) that are interesting from the Finnish viewpoint. The main focus of the research, however, is on analysing the goals, methods and organisation of such forecasts. The results of the programme are important for determining the need to predict technological trends and putting technology into practice in Finland.

Networking is a long-term Sitra research object. It is the topic of the research project begun in 2001 on the new economy. The first report from the project was published in autumn 2001 in the book Uuden talouden loppu? (The End of the New Economy?). It is a general overview of the concept the new economy and research into it. The project will continue by analysing the effects of the new economy on Finland. The results are to be published in spring 2002.

### Innovative projects

In the year 2001 innovative projects concentrated on those projects already decided upon, namely Remote Regions (OSKU) and the Centre for Social Innovations in Eastern Finland (ISO INKE), together with drawing up plans for new projects.

The OSKU project was started with eight regional sub-projects in different parts of Finland. They develop further the models learned as part of the Ylä-Karjala project with the aim of building up a national network for the information society. A local citizens' network is set up for each sub-project, and local tutors are trained among the region's un-

employed who then teach the local population how to make use of information networks in their daily lives. The content of the networks and the uses to which they are put are formed according to each region's own premises.

The ISO INKE project, which is being carried out by local authorities in the Pieksämäki region, tries to develop new models for producing welfare services. In 2001 the supply and demand of welfare services in the region were charted, models for an organisation mediating private welfare services evolved, and the costing and collaboration over purchasing of the local authorities' own production of services improved. During the year work was started on setting up a network for service enterprises and a call centre established for welfare services.

Of the innovative projects already started by Sitra the Spearhead information service for developers of the information society continued. At year-end the service had 5,700 registered users.

Finland Travel Marketing Oy was set up as part of the Barrier-Free World project to market Finnish rehabilitation spas abroad. The project was not a success and at the end of the year under review Sitra sold its holding in the company to Matkailunkehitys Nordia Oy. At the same time the shareholder base was broadened to take in the most important rehabilitation spas. During the year the senior citizens' fitness gymnasium idea was developed further

as part of the Barrier-Free World project.

Preliminary plans for new innovative projects continued. During the year initial drafts for projects such as the virtual skills school, young people's control of their lives, and teleworking centres were formulated and a guidebook for project leaders compiled to support Sitra's project work.

### Training

During the year under review the training strategies decided on in 1999 were put into practice. Courses 3 and 4 of the Finland 2015 programme were held with the opening seminar of the third course in Washington, DC, and the fourth course began its work in San Francisco. The following seminars of both courses were in Moscow and Berlin and the last two seminars were held in Finland. The final reports from the courses gave rise to considerable public debate. The courses also proposed that several themes should form the topic of deeper discussion workshops. The first of these, The Crisis in Working Life – the Response of Training, was started in autumn 2001.

Within the framework of the Economic Policy 2000+ programme two week-long courses were arranged. Young decision-makers from Russia learned how Finnish society works in a week-long programme entitled Russian Future-Makers in Finland. Three seminars were held on the topic of the challenges facing economic policy.

## NETWORK DEVELOPMENT AND FINANCE

On the basis of the experiences from Sitra's Skills Technology project it was decided to expand its scope and to bring networks comprising traditional SME's up to date with the aid of measures from the new economy and technology. The aim is to strengthen entrepreneurship by means of market-oriented business, networking and internationalisation.

The Skills Technology bags and leather products project developed new top-quality product lines with the help of professional designers and companies. At the same time different alternatives were studied for setting up a "flagship" for this field.

The musical instruments project was concluded in the summer when it was realised together with entrepreneurs that the branch is not yet ready for the networking model of operation.

As part of the interior design project a turnkey concept was evolved for congress and conference premises in collaboration with a group of companies. In autumn a wide-ranging study was made to find a suitable partner with whom to cooperate in Germany.

A study was begun in the autumn to find out how the Employment and Economic Development Centres, the National Technology Agency (Tekes), Finnvera, Finpro, Suomen Teollisuussijoitus Oy (Finnish Industry Investment Ltd) and Sitra could extend their cooperation to help small and medium-sized enterprises to develop and go international. At the same time a start was made on charting traditional corporate networks with the aim of developing them.

## CORPORATE FUNDING

The principal purpose of Sitra's corporate funding is to create and develop competitive and profitable business in Finland by offering entrepreneurs and companies financing and services to help them develop.

Sitra's corporate funding not only provides capital for newly started companies but also venture capital, PreSeed services, technology transfer services and Sitra Management Oy's administrative skills.

The amount of Sitra's funding decisions was € 61 million while in the record year 2000 it was € 83 million. The fall is mainly attributable to falling investment in venture-capital funds. On the other hand, the amount directly put into companies grew compared with 2000. Thus Sitra lived up to its role as a part of the efficient Finnish innovation system.

Sitra's corporate funding is of a long-term nature and remains largely unaffected by short-term cyclical trends. On the other hand, its thinking is determined by market orientation. If conditions on the markets and the terms of financing change, then Sitra tries to adapt its terms correspondingly in order to avoid competing with private investors.

The international capital markets seem to have begun to recover in 2002. However, it is clear that the recession that began to affect all the leading markets in 2000 will make itself felt for at least a couple of years yet. During that time Sitra will have to bear responsibility for tiding its promising portfolio companies over their difficulties. At the same time it will continue to develop its own services along the lines of the best international practices.

### Venture-capital operations

Sitra's venture-capital operations concentrate on providing money for start-up companies. Often Sitra provides seed capital for a newly established company that is in the process of developing its products and that has not actually started business operations.

It is mostly innovative technology companies that Sitra looks for. Previously it was usual to seek out manufacturing companies but nowadays it is impossible to separate products and services from each other so that today many of Sitra's companies are providers of services.

Despite the difficult economic situation the number of Sitra's direct investment proposals reached the

same level as the previous year. Just under 200 business plans and applications for funding were examined during the year. The number of projects in the technology sector rose even higher than the preceding year. Ten – fifteen per cent of applications lead to a favourable decision.

The amount covered by favourable direct investment decisions amounted in 2001 to a remarkable € 37 million, while in 2000 it was € 22 million. Decisions on first-time investment amounted to € 15 million as against € 12 million the year before. These decisions affected 22 companies while the corresponding figure for the preceding year was 24.

Newly started companies usually require further finance. Since there were very few exits in the year under review, the importance of further funding increased. Further finance amounting to € 22 million was provided for a total of 39 companies. The figures for the previous year were € 10 million and 30 companies. The increase in Sitra's direct investment is extremely significant since companies' prices have fallen from what they were a couple of years ago, depending on industry and company, by as much as 50 – 70 per cent. In consequence of other investors' unwillingness to provide funding for newly started companies the demand for Sitra's financing has increased.

In 2001 Sitra exited from 11 enterprises. The money freed by these exits amounted to € 2 million.

The international competitiveness of a company requires a certain critical mass and resources. A growing trend is for companies to join forces before they go international. Acquisitions, mergers and alliances are ways in which firms can expand their range of products and also master the risks involved in being small and having too one-sided products. Sitra takes an active role in developing and strengthening its portfolio companies.

Sitra's cooperation when it comes to providing venture capital with other market operators has become even closer. The most likely partners are from the public sector, especially the National Technology Agency (Tekes), from which nearly all Sitra's companies have received funding. In addition, Sitra participates actively in Tekes' technology programmes. Other important partners include Finnvera Oyj, Suomen Teollisuussijoitus Oy (Finnish Industry Investment Ltd), the Academy of Finland, the Technical

Research Centre of Finland VTT and Finpro. During the year an information portal, [www.yrityssuomi.fi](http://www.yrityssuomi.fi), was set up for companies and entrepreneurs. This portal began operating at the beginning of 2002.

The project referred to in the annual report for the year 2000 to set up a national seed fund together with Suomen Teollisuussijoitus Oy (Finnish Industry Investment Ltd) did not materialise.

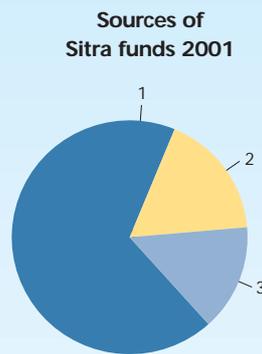
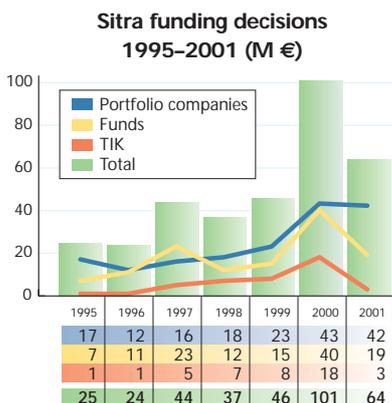
As well as working with the public sector Sitra also endeavours to cooperate with private investors. This policy has succeeded well and as a result other investors are involved in almost every other of Sitra's portfolio companies. When investment at the same financing round is made on the same terms, it shows that Sitra's funding is indeed market-oriented.

Sitra's venture-capital operations are carried out by four teams: technology, Life Sciences, regional operations and PreSeed. At the end of 2001 Sitra had 121 companies in its portfolio. The value of these investments was € 104 million. The corresponding figures for the previous year were 114 companies and € 81 million.

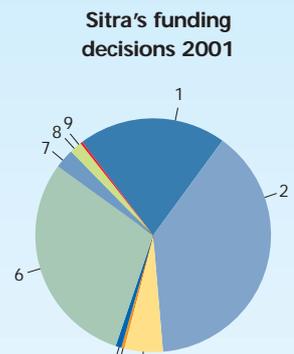
**Sitra's fund investment**

Sitra has been investing in funds since the early 1990's. In addition to its investment activities Sitra has also taken an active role in administering such funds. In the beginning its aim was to learn from investors and to further the development of this field in Finland. More recently Sitra's role has become increasingly diversified.

Sitra played a significant part in the setting up of a network of regional funds in the mid-1990's together with what was then Kera. At the end of the decade Sitra's role became to develop the management and administration of these funds. In this connection Sitra became a majority shareholder in many



	€ M	%
1. Net profit from investments	15.2	67.9
2. Profit from project finance	3.9	17.4
3. Profit from fund investments	3.3	14.7
<b>Total</b>	<b>22.4</b>	<b>100.0</b>



	€ M	%
1. Growth companies	13.0	20.3
2. Seed investments	24.8	38.6
3. PreSeed	3.4	5.3
4. Commercialisation of technology	0.3	0.4
5. Other funding	0.5	0.8
6. Fund investments (Finnish 21.1 %, foreign 8.8 %)	19.1	29.9
7. Research	1.7	2.7
8. Training	1.1	1.7
9. Innovative projects	0.2	0.3
<b>Total</b>	<b>64.1</b>	<b>100.0</b>

of the companies managing the regional funds. In accordance with the programme that was drawn up at this stage the companies were to be privatised and the degree of entrepreneurship increased. This objective has been achieved according to plan. By the end of 2003 Sitra will reduce its involvement in these companies to a maximum of 20 per cent. The financial and human resources of regional funds have grown markedly in recent years.

Since the year 2000 Sitra's investment in funds has become much more strategic. The most important criterion is whether the investment fits into the overall pattern of Sitra's operations and supports them. Investment has been in both Finnish and international funds. Cooperation is an integral part of the investing teams' operations. Much investment has been in funds and management companies in Finland's neighbouring countries in the Baltic and in Russia.

Sitra decided to invest in nine funds in 2001. Of these three were international funds, three regional funds and three other Finnish funds. The total amount involved was € 30 million.

The return on Sitra's investment in venture-capital funds in 2000 was exceptionally large, € 41 million. The sharp decline in the market led to the return falling in the year under review to only € 4 million. Sitra's profits from its investments in these funds

is expected to be considerably less in the years 2002 and 2003 than the best years of 1999 and 2000.

At year-end Sitra had invested in 54 funds and the total amount of its commitments was € 122 million. In addition, Sitra and its subsidiary Sitra Management Oy held interests in 19 fund-management companies. All in all Sitra has paid € 84 million of the sums it has committed and received payments and revenues amounting to € 86 million.

### PreSeed

Sitra's corporate funding operates in areas where there are gaps in the market. At the same time that the gaps are filled, the operations of the market are developed. A malfunctioning gap is that between product development and venture capital. To fill this gap it was decided in 2000 to set up PreSeed funding.

Together with Tekes a plan was drawn up for the LIKSA service. The purpose of this is to make it possible to turn a good idea into a realistic business plan. LIKSA funding can be granted to an entrepreneur even before he has set up in business. With the aid of this money he can concentrate his efforts on drawing up a business plan and obtaining the services he needs from outside suppliers.

During the early part of the year under review plans for LIKSA became more concrete and it began operating in summer 2001. By year-end 160 applications for funding had been processed and of these about a quarter were approved. First experiences are that there is indeed a considerable demand for this service.



The Board of Directors held ten meetings during the year. Members of the Board (from left) Esko Ollila, Markku Linna, Aatto Prihti, Raimo Sailas, Erkki Virtanen and Hannele Pohjola and secretary of the Board Kirsti Uotila.

The other arm of the PreSeed package is the INTRO service. As a part of this Sitra introduces companies to prospective investors. Newly started companies often need not only finance but also help in organising and developing the actual business. Private investors, i.e. business angels, constitute an important group of investors. The first INTRO-stage investments are being made in early 2002.

### Commercialisation of technology

The purpose of the commercialisation of technology programme is to ensure that the innovations resulting from the research done at universities and research institutes are put into commercial practice.

Sitra encourages technology transfer in collaboration with eight technology-transfer companies. Sitra has a minority interest in some of these companies.

The most significant event in the network of companies working to commercialise technology was the start of Licentia Ltd. Licentia came into existence as the result of a merger of Helsinki University Licensing and Finntech Finnish Technology. This meant an amalgamation of licensing resources in the Helsinki Metropolitan area. The company has got off to good start. A second important step was the licensing programme set up with the technology-transfer companies. This was started in 2000 and will continue in 2002. As a result of the programme it has been possible to sign agreements worth € 5 million in all.

If the commercialisation of an innovation leads to the establishment of a company, then the company's first step is a business incubator. Sitra's role in helping companies to develop was given careful consideration during the year under review and a study made of companies specialising in corporate development in Finland. A decision on Sitra's possible participation in this field was deferred until 2002.

### Sitra Management Oy

Sitra owns the entire stock of Sitra Management Oy. The firm's task is to administer the shares of the management companies that it owns and those of fund-management companies owned by Sitra. The company's holding in Fenno Management Oy was sold during the year. The company employs a managing director and two officials. Sitra Management's profit for the year was € 0.2 million and the Balance-Sheet total € 4.5 million.

## ADMINISTRATION AND PERSONNEL

Sitra is a public fund under the supervision of the Finnish Parliament. Its Supervisory Board is made of the Parliamentary Supervisory Council of the Bank of Finland. During the year under review the Supervisory Board met on six occasions. Its members consisted of Ilkka Kanerva (chairman), Virpa Puisto (vice-chairman), Olavi Ala-Nissilä, Anneli Jäätteenmäki, Antero Kekkonen, Mauri Pekkarinen, Martti Tiuri, Kari Uotila and Ben Zyskowitz. Anton Mäkelä acts as secretary to the Board.

Sitra's Board of Directors in the year 2001 was made up of Raimo Sailas (chairman), Erkki Virtanen (vice-chairman), Markku Linna, Esko Ollila, Hannele Pohjola and Sitra's president Aatto Prihti. Secretary to the Board was Kirsti Uotila. The Board met ten times in the course of the year.

Auditors appointed by the Finnish Parliament are Johannes Leppänen (chairman) (deputy Paula Lehtomäki), Matti Saarinen (Ulla Juurola), Iivo Polvi (Arto Kuusiola, APA), Juha Karpio (Kalervo Kummola) and Prof. Reino Majala, APA (Kari Manner, APA). Secretary to the auditors was Prof. Kaler-vo Virtanen, APA.

Juha Wahlroos, APA of the auditing company SVH PricewaterhouseCoopers Oy was appointed by the Supervisory Board to be responsible for Sitra's in-

ternal audit and for auditing Sitra's portfolio investments.

The first year that Sitra has operated from its new premises at Itämerentori 2 in Ruoholahti, Helsinki proved to be successful. The architecture and design of the premises have led to considerable favourable comment.

Sitra's personnel at the end of the year under review numbered 89 people, of whom 32 were in corporate funding and 24 in research, innovative projects and training. Thirty-three people are engaged in administration. Of the personnel 58 per cent are female and 42 per cent male, and their median age is 40 years. Sixty-five per cent of the personnel have university or higher education.

In its personnel management Sitra strives to develop its activities by recognising ways to improve and inspiring a good working atmosphere. During the year under review a new incentive scheme was introduced.

Sitra's employees are strongly committed to their work. Their well-being is ensured by means of training courses and a comprehensive health-care service in the same building. To better their knowledge, skills and attitudes Sitra offers its own training courses and recreation facilities.

## ENDOWMENT CAPITAL

The nominal value of Sitra's endowment capital is € 235 million. The market value of capital, which is invested primarily in Finnish and foreign equities, fixed-interest securities, real-estate and investment funds, amounted to € 755 million at year-end. Because of the difficult situation on the financial markets the market value fell during the year by € 308 million.

Responsibility for managing the equities and securities has been delegated to outside asset-manage-

ment companies. Mandatum Asset Management Ltd, Alfred Berg Asset Management, Lombard Odier & Cie, Morgan Stanley & Co. Int. Ltd. and JP Morgan Fleming Asset Management Ltd acted as asset managers for Sitra during the year. At the end of the year a decision was made to appoint a new management company Handelsbanken AB. At year-end 73 per cent of Sitra's endowment capital was invested in Finnish assets.

## PROPOSAL FOR THE DISPOSAL OF LOSS

The Board of Directors proposes that the net loss for the year, amounting to € 24,880,681.22, be carried

forward.

**PROFIT AND LOSS ACCOUNT**

(in € 1 000)

		1.1.-31.12.2001	1.1.-31.12.2000
		€	€
<b>ACTUAL OPERATIONS</b>			
<b>Corporate funding</b>			
Income			
		2,276	5,650
		3,291	40,455
		1,651	13,337
	1)	7,218	59,442
Expenses			
	2)	-30,440	-15,733
	3)	-729	-679
		-2,960	-2,505
		-34,129	-18,918
		-26,911	40,525
<b>Research, innovative projects and training</b>			
Income			
	4)	15	32
Expenses			
	5)	-7,719	-5,066
	6)	-273	-128
		-1,264	-1,044
		-9,256	-6,238
		-9,241	-6,206
<b>Administration</b>			
Expenses			
	7)	-5,901	-4,918
	8)	-622	-644
		-1,668	-989
		4,224	3,549
		-3,967	-3,002
<b>Loss/Profit</b>		<b>-40,119</b>	<b>31,316</b>
<b>INVESTMENT OPERATIONS</b>			
	9)	88,855	248,721
	10)	-73,617	-80,469
		15,239	168,252
<b>NET LOSS/PROFIT FOR THE YEAR</b>		<b>-24,881</b>	<b>199,568</b>

**BALANCE SHEET**

(in € 1 000)

		31.12.2001	31.12.2000
		€	€
<b>ASSETS</b>			
<b>Fixed assets</b>			
Tangible assets			
		1,288	988
		14,415	14,415
		142	185
	11)	15,844	15,587
Funding operations			
		177,024	134,774
		16,875	9,927
		11,508	10,727
	12)	205,406	155,428
Endowment capital investments			
		124,266	138,532
		222,119	263,325
		38,890	25,112
		30,190	26,161
		85,600	89,784
	13)	501,065	542,914
		722,316	713,930
<b>Current assets</b>			
Accrued income			
	14)	5,546	9,430
		6,042	3,051
		11,588	12,481
<b>TOTAL ASSETS</b>		<b>733,904</b>	<b>726,411</b>
<b>LIABILITIES</b>			
<b>Equity</b>			
		235,463	168,188
		403,375	271,082
		-24,881	199,568
		613,958	638,838
<b>Transfers</b>			
		40,437	28,194
<b>Liabilities</b>			
Short-term			
		3	0
		22,397	19,369
	15)	57,110	40,009
		79,510	59,378
<b>TOTAL LIABILITIES</b>		<b>733,904</b>	<b>726,411</b>

## NOTES TO THE FINANCIAL STATEMENTS

### ACCOUNTING PRINCIPLES

Receivables and payables in foreign currencies have been translated into euros at the exchange rate in force on the last day of the financial year.

Shares, participations and bonds in endowment investments have been valued at the original acquisition cost or at market value in accordance with the lower of cost or market principle.

The Balance-Sheet value of investments in venture-capital companies and funds is recorded at their historical acquisition value or a lesser sum determined by internal valuation. The internal valuation procedure is performed twice a year and any necessary value adjustments (revaluation or devaluation) made on the basis of the valuation at year-end is included in the financial statements. The value of investments in venture-capital funds is calculated using the same principles where applicable. The basis of their value is the same as that given by the funds for their portfolios.

Sitra's accounts follow the same principles as laid down in the Finnish Accounting Act with the following exceptions:

- in the case of corporate funding early-stage investments (seed finance) a risk reserve is made in accordance with the principle of prudence.
- expenses incurred in the commercialisation of technology, innovative projects and training are recorded as expenses and the same applies to debts on which repayment is conditional.
- repayments related to funding decisions (income) are recorded only after payment has been received.

### NOTES TO THE PROFIT AND LOSS ACCOUNT (in € 1,000)

Further details are given here of the different items in the Profit and Loss Account. The number refers to the corresponding entry in the Profit and Loss Account.

#### CORPORATE FUNDING

<b>1 Income from corporate funding</b>	<b>2001</b>	<b>2000</b>
seed finance	246	1,427
growth companies	3,142	17,371
investment in venture-capital funds	3,679	40,587
commercialisation of technology	150	58
	<b>7,218</b>	<b>59,442</b>
<b>Seed finance</b>		
capital refunds	51	100
interest payments	174	324
profit from sales	0	925
other income	22	78
	<b>246</b>	<b>1,427</b>
<b>Growth companies</b>		
capital refunds	57	52
interest payments	231	271
profit from sales	2,250	4,685
dividends	279	12,358
other income	326	5
	<b>3,142</b>	<b>17,371</b>
<b>Investment in venture-capital funds</b>		
shares in profits	3,291	40,455
interest payments	15	6
profit from sales	26	40
dividends	326	86
other income	20	0
	<b>3,679</b>	<b>40,587</b>
<b>Commercialisation of technology</b>		
capital refunds	0	5
interest payments	11	0
dividends	139	53
	<b>150</b>	<b>58</b>

<b>2 Expenses from corporate funding</b>	<b>2001</b>	<b>2000</b>
seed finance	20,082	12,369
growth companies	4,560	2,000
investment in venture-capital funds	4,142	462
PreSeed	943	0
commercialisation of technology	714	902
	<b>30,440</b>	<b>15,733</b>
<b>Seed finance</b>		
expenses	468	296
value adjustment	7,372	7,947
change in risk reserve	12,242	4,127
	<b>20,082</b>	<b>12,369</b>
<b>Growth companies</b>		
expenses	877	494
value adjustment	3,683	1,506
	<b>4,560</b>	<b>2,000</b>
<b>Investment in venture-capital funds</b>		
expenses	-98	-133
value adjustment	4,239	594
	<b>4,142</b>	<b>462</b>
<b>PreSeed</b>		
expenses	943	0
	<b>943</b>	<b>0</b>
<b>Commercialisation of technology</b>		
expenses	714	724
value adjustment	0	178
	<b>714</b>	<b>902</b>

<b>3 Other expenses</b>	<b>2001</b>	<b>2000</b>
seed finance	16	19
growth companies	566	509
investment in venture-capital funds	47	70
PreSeed	26	0
commercialisation of technology	73	81
	<b>729</b>	<b>679</b>

#### RESEARCH, INNOVATIVE PROJECTS AND TRAINING

<b>4 Return on investment</b>	<b>2001</b>	<b>2000</b>
research	15	32
	<b>15</b>	<b>32</b>
<b>5 Investment expenses</b>	<b>2001</b>	<b>2000</b>
research	2,095	2,382
innovative projects	4,505	1,850
training	1,119	833
	<b>7,719</b>	<b>5,066</b>
<b>6 Other expenses</b>	<b>2001</b>	<b>2000</b>
research	178	88
innovative projects	12	0
training	83	41
	<b>273</b>	<b>128</b>

A total of 38 research, training and innovative projects received funding during the year under review. The most important of these were:

Research projects

- Research programme for innovative systems
- The Finnish model of information society
- Europe 2020
- The new economy
- Experiences with national technology foresight studies
- Merit payment systems

Innovative projects		
Remote regions – local pilot projects		
The centre for social innovations in eastern Finland		
Spearhead network of the information society		
Skills technology pilot projects		
Training		
Finland 2015 – training programme for decision-makers		
Economic Policy 2000+		
Russian Future-Makers in Finland – training programme		
Economic policy – forum and panel		

## ADMINISTRATION

<b>7 Personnel expenses</b>	<b>2001</b>	<b>2000</b>
Personnel expenses		
wages and salaries	4,072	3,362
pension expenses	881	698
other payroll expenses	948	857
	<u>5,901</u>	<u>4,918</u>
Personnel at year-end		
corporate funding	28	24
research	13	13
administration	33	28
	<u>74</u>	<u>65</u>

Of the administrative staff two were on maternity leave.

The total number of project personnel employed by Sitra was 15 (2000 19). Their wages and salaries and other payroll expenses, amounting to € 1.3 million, are included in expenses for funding projects.

<b>8 Depreciation</b>	<b>2001</b>	<b>2000</b>
Depreciation according to plan		
machinery and equipment	494	528
other capitalised expenditure	67	55
renovation of office premises	62	62
	<u>622</u>	<u>644</u>

Depreciation according to plan on fixed assets is calculated in equal instalments of the original acquisition value for the useful life of the asset.

Useful life as used in depreciation according to plan		
other capitalised expenditure		5 years
renovation of office premises		10 years
machinery and equipment		5 years
computer equipment acquired after 1.1.1999		3 years

Depreciation of € 0.3 million on invested assets is calculated correspondingly and included in the expenses of investment operations.

## INVESTMENT OPERATIONS

<b>9 Income from investment operations</b>	<b>2001</b>	<b>2000</b>
profits from sales	58,322	222,657
interest income	11,123	11,500
bond price gains	4,209	1,241
exchange-rate gains	3,019	4,425
dividend income	10,135	8,349
rental income	1,974	548
shares in profits	73	0
	<u>88,855</u>	<u>248,721</u>

<b>10 Expenses from investment operations</b>	<b>2001</b>	<b>2000</b>
asset depreciations	55,197	71,562
regained depreciations	-3,212	-1,469
losses on sales	18,496	5,328
bond price losses	1,837	1,488
exchange-rate losses	539	1,818
asset management fees	880	981
real-estate expenses	627	629
value adjustment of real-estate shares	-730	-60
other expenses	-17	193
	<u>73,617</u>	<u>80,469</u>

Depreciation has been recorded per each acquired asset group. For both Finnish and foreign shares the latest trading price has been used. Bonds and debentures have been valued according to the price given by the Helsinki Stock Exchange.

## NOTES TO THE BALANCE SHEET (in € 1,000)

Further details regarding the contents of the Balance Sheet are given here. The number refers to the corresponding entry in the Balance Sheet.

### 11 Tangible assets

During the year under review fixed assets to a value of € 0.9 million were acquired (2000 € 15.5 million).

	Acquisition cost Dec. 31, 2001	Depreciation according to plan Dec. 31, 2001	Book value Dec. 31, 2001
machinery and equipment	2,620	1,486	1,134
other capitalised expenditure	383	253	130
renovation of office premises	617	605	12
other fixed assets	153	0	153
	<u>3,773</u>	<u>2,344</u>	<u>1,429</u>

shares and participations	<b>2001</b>	<b>2000</b>
shares in office premises	14,405	14,405
other shares	9	9
	<u>14,415</u>	<u>14,415</u>

<b>12 Fund investments</b>	<b>2001</b>	<b>change</b>	<b>2000</b>
seed finance	40,437	12,242	28,194
growth companies	41,297	13,130	28,168
investment in venture-capital funds	120,283	24,606	95,677
commercialisation of technology	3,000	-252	3,252
other investments	390	252	138
	<u>205,406</u>	<u>49,978</u>	<u>155,428</u>

### Seed finance, 58 companies

Abmin Technologies Ltd	Enterprixe Software Ltd
Add2Phone Ltd	FIT Biotech Oyj Plc
Aislo Oy	Focus Inhalation Oy
Oy Arbonaut Ltd	Food Automation Finland Oy
Artscan Oy	Galilaeus Oy
Bio-Nobile Oy	Geniem Oy
BioTie Therapies Corporation	Glocal Oy
Bonalys Ltd	GWM-Systems Oy
Chempolis Oy	Hauler Oy
Contral Pharma Ltd	HMM Software Oy
EigenValue Ltd	Hormos Medical Corporation
Elcard Oy	Ipsat Therapies Oy

IST International Security Technology Oy	Novasso Ltd
IWS International Oy	Oseir Ltd
Juvantia Pharma Ltd	Osfix International Ltd Oy
Karyon Oy	PanPhonics Ltd
Kultaturve Oy	Pharmatory Ltd
Lamicon Oy Ltd	Polymer Corex Kuopio Ltd
LT Mobile - Linkkitechdas Ltd	Privanet Capital Oyj
Medineuvo Oy	Quantronics Oy
Medixine Ltd	SafetyCity Ltd Oy
Meteori Books Oy	Smartner Information Systems Ltd
Mevire Oy	SourceCode Finland Oy
MobiDiag Oy	Spectrum Medical Sciences Oy
Nanobac Oy	Taika Ltd
Nanoway Oy	u-NAV Microelectronics Corporation
Neoforest Oy	UniCrop Ltd
Neomed Oy	Uniqmed Oy
Nexstim Oy	Voxlab Oy

Venture-capital investments	Dec. 31, 2001	change	Dec. 31, 2000
shares and participations	33,660	3,750	29,910
capital loans	14,821	6,429	8,392
other loans	2,734	-109	2,843
value adjustments	-10,779	2,171	-12,950
	40,437	12,242	28,194

A total of 18 new seed companies came about during the year. Altogether € 12.1 million were invested in these. During the year Sitra exited from 19 seed companies. Of these one was sold, one has gone into liquidation, one went bankrupt (original sum invested € 0.5 million), and 10 were transferred to the group of growth companies and six companies have been dropped from the active portfolio.

#### Growth companies, 63 companies

APLAC Solutions Corporation	Mega Electronics Ltd
Aplicom Oy	Megatrex Oy
Audibit Oy	Mehiläinen Oy
B-Band Ltd	Moduleo Oy
Bevesys Oy	Mytek Oy
Biofons Ltd	Neorem Magnets Oy
BPM Group Oy	Okmetec Oy
Camelina Ltd	Optatech Corporation
DBC International Ltd Oy	Pharming Health Care Products B.V.
Delfin Technologies Ltd	Porin Teollisuusautomaatio Oy
DeskArtes Oy	Prowellness Ltd
Diomed Inc.	Puuman Oy
FibroGen Inc.	QPR Software Plc
Finmet Oy	R 5 Vision Ltd
Finsson Oy	RADOS Technology Oy
Fluid-Bag Ltd	Reactionlab Oy
Fluilogic Oy	Setec Oy
Foodfiles Ltd	Shanghai Finmet Medical Instrument Co Ltd
Heptagon Oy	Smilehouse Oy
Hidex Oy	Stick Tech Ltd
Innomedica Ltd	Syncon Tech Oy
Innotrac Diagnostics Oy	Sysline Oy
Ion Blast Ltd	Tapvei Oy
Kibron Inc.	Tassu-Taimisuoja Oy
Kielikone Ltd	Toolmakers Lahti Oy
Kivia Oy	TR-Tech. Int. Oy
KSV Instruments Ltd	Welfare Communications Oy
Kuntokumppanit Oy	Vista Communication Instruments, Inc
Labmaster Ltd	VLSI Solution Oy
Mail Systems Oy	
MAP Medical Technologies Oy	
Mechanical Assembly and Consulting MAC Oy	
Medhelp Ab	
Medikro Oy	

Investments	Dec. 31, 2001	change	Dec. 31, 2000
shares and participations	42,825	13,443	29,382
capital loans	7,456	1,593	5,863
other loans	5,080	1,065	4,015
value adjustments	-14,064	-2,973	-11,091
	41,297	13,130	28,168

During the year under review five new growth companies were added to Sitra's portfolio. In addition, 10 companies were transferred from the seed stage to the growth stage. Seven growth companies were dropped from the portfolio during the year. Of these four were sold, one was merged with a seed company, one went into liquidation and one has been dropped from the active portfolio.

Investment in venture-capital funds	Dec. 31, 2001	change	Dec. 31, 2000
international funds and management companies	60,702	9,118	51,584
regional funds and management companies	17,486	3,505	13,981
other Finnish funds and management companies	42,095	11,983	30,112
	120,283	24,606	95,677

#### International funds and management companies

##### Funds

Advanced European Technologies N.V.	Merlin Biosciences Fund L.P.
Apple Tree Ventures II L.P.	Norum (Cyprus) Ltd
Associated Venture Investors III	Russian Technology Fund L.P.
Atlas Venture Fund III	Strategic European Technologies N.V.
Baltic Investment Fund I	Technologieholding Central and Eastern European Fund N.V.
Baltic Investment Fund II	Trident Capital Fund V
Baltic Investment Fund III	Ventech Capital II L.P.
Baring Capricorn Ventures	
Boston Millennia Partners LP	<b>Management companies</b>
Crescendo III, L.P.	3TS Venture Partners Oy
Diamondhead Ventures L.P.	Baltcap Oy *)
Edison Venture Fund IV	Baltic Investment Fund Management Ltd
European Renaissance Capital L.P.	Baltic Venture Advisers Oy
Euroventures Nordica II B.V.	BIF Management Ltd *)
First European Fund Investments	EQM Proventure Oy
Global Private Equity II L.P.	European Fund Investments Carried Interest Unit Trust
Hambros Advanced Technology Trust II L.P.	Nordic Venture Partners Ltd
Hambros Advanced Technology Trust III L.P.	Nordic Russian Venture Partners Ltd *)
HealthCap 1999 KB	Norum (Cyprus) Ltd
InnKap 2 Partners	RTF Management Ltd
InnKap 3 Partners	*) through Sitra Management Oy

During the year Sitra invested in three new international funds. In these 28 funds and eight management companies Sitra has invested

	Dec. 31, 2001	change	Dec. 31, 2000
shares and participations	62,965	13,499	49,466
capital loans	0	0	0
other loans	3,183	-142	3,324
value adjustments	-5,446	-4,240	-1,206
	60,702	9,118	51,584

#### Regional funds and management companies

##### Funds

Aboa Venture Ky	Karinvest Oy
Aboa Venture III Ky	Lapin Rahasto I Ky
Ganal Venture Ky	Matkailunkehitys Nordia Oy
Grow How Rahasto I Ky	Midinvest Oy
Indekon Oy	Midinvest I Ky
Innoventure Oy	Pikespo Invest Oy Ltd

Savon Teknia Oy	<b>Management companies</b>
Seedcap Ky	Aboa Venture Management Oy
Spinno-seed Oy	Innofinance Oy
Teknoventure Oy	Nordia Management Oy
Vakka-Suomen	Sentio Invest Oy
Pääomarahasto Ky	Teknia Invest Oy
	Teknoventure Management Oy

During the year Sitra invested in three new regional funds. In these 17 regional funds and six management companies Sitra has invested

	Dec. 31, 2001	change	Dec. 31, 2000
shares and participations	17,486	3,505	13,981
capital loans	0	0	0
other loans	0	0	0
value adjustments	0	0	0
	17,486	3,505	13,981

#### Other Finnish funds and management companies

<b>Funds</b>	<b>Management companies</b>
Bio Fund Ventures I Ky	Sitra Management Oy
Bio Fund Ventures II Ky	Bio Fund Management Oy *)
Bio Fund Ventures III Ky	Eqvitec Partners Oy *)
CIM Venture Fund for Creative Industries Ky	
Eqvitec Teknologiarahasto I Ky	
Eqvitec Teknologiarahasto II Ky	
Finnventure Rahasto II Ky	
Finnventure Rahasto III Ky	
MB Equity Fund Ky	

\*) through Sitra Management Oy

During the year under review three new fund investments have been made in Finland. In these 9 funds and one management company Sitra has invested

	Dec. 31, 2001	change	Dec. 31, 2000
shares and participations	38,725	11,983	26,742
capital loans	0	0	0
other loans	3,370	0	3,370
value adjustments	0	0	0
	42,095	11,983	30,112

#### Commercialisation of technology

AboaTech Oy Ab
Culminatum Oy
Finn-Medi Tutkimus Oy
Helsingin Tiedepuisto Oy
Helsingin Yliopiston Holding Oy
Innokarelia Oy
Innopoly Oy
Licentia Oy
Oulutech Oy
Sitrans Oy Ltd
Tuotekehitys Oy Tamlink

During the year two technology-transfer companies were merged. In addition one technology-transfer company has ceased to exist. In these 11 objects Sitra has invested

	Dec. 31, 2001	change	Dec. 31, 2000
shares and participations	2,442	-76	2,518
capital loans	593	-252	845
other loans	143	0	143
value adjustments	-178	76	-254
	3,000	-252	3,252

#### Other investments

NASDAQ Europe SA  
Navicre Oy  
15 companies have been dropped from the active portfolio  
In these 17 objects Sitra has invested

	Dec. 31, 2001	change	Dec. 31, 2000
shares and participations	7,771	5,711	2,060
capital loans	1,825	739	1,086
other loans	1,029	313	716
value adjustments	-10,235	-6,511	-3,724
	390	252	138

#### 13 Endowment capital investments

	2001	2000
<b>Long-term investments</b>		
bonds and debentures	124,266	138,532
Finnish shares	134,277	162,943
foreign shares	87,843	100,382
fund investments	38,890	25,112
real-estate investments	30,190	26,161
<b>Short-term investments</b>		
bonds and debentures	6,465	15,218
investment certificates	76,862	69,581
asset management accounts/cash	2,188	4,859
other short-term investments	85	126
	501,065	542,914

Difference between the capitalised acquisition cost and market value of publicly quoted endowment capital securities

market value	494,093	796,641
corresponding book value	222,119	266,452
difference	271,974	530,189

#### 14 Accruals

Interest payments for the year under review on income from investment operations were € 4.6 million.

#### 15 Liabilities from investment operations

Debts arising out of investment operations are made up of funding agreements on which agreement has already been reached and Sitra's liability exists.

#### LOANS ENTERED AS EXPENSES WHERE REPAYMENT WAS DUE BY 31.12.2001

Loans which were due for repayment by the end of the financial year entered as expenses amounted to € 2.3 million (2000 € 1.9 million). Of these loans € 0.2 (0.2) million were ones that had already been repaid and where repayment is made according to a fixed timetable and € 1.4 (1.1) million the repayment of which is made on the basis of royalties instead of a fixed timetable. Loans which had not been repaid or where agreement has not yet been reached on the terms of repayment amounted to € 0.8 (0.5) million.

#### OFF-BALANCE SHEET LIABILITIES – DECEMBER 31, 2001

Where funding has been agreed but no agreement yet signed	2001	2000
seed funding	13,232	14,450
growth company funding	5,492	7,564
fund investments	8,030	14,047
PreSeed	3,715	0
commercialisation of technology	744	316
research	2,393	3,118
innovative projects	11,019	14,843
	44,625	54,338

## GUARANTEES

Guarantees for others total € 0.1 million (2000 € 0.1 million).

Helsinki, February 8, 2002



Raimo Sailas



Erkki Virtanen



Markku Linna



Esko Ollila



Hannele Pohjola



Aatto Prihti

## AUDITORS' REPORT

Having been appointed by the Finnish Parliament as auditors we have examined the financial statements, the bookkeeping and administration of the Finnish National Fund for Research and Development (Sitra) for the financial period 2001 to the extent required by good auditing practice.

SVH Pricewaterhouse Coopers Oy have performed the internal audit and audit of funded projects. We have familiarised ourselves with their reports of these audits.

The financial statements, which show a net loss of € 24,880,681.22 have been drawn up in accordance with current legislation. The financial statements present a correct and adequate description of the Fund's activities and its financial position.

We recommend that the Profit and Loss Account and the Balance Sheet be adopted and that members of the Board of Directors and the president be discharged of responsibility for the financial period covered by our audit. We recommend that the proposal for the losses for the year made by the Board of Directors in their report be approved.

Helsinki, February 25, 2002



Johannes Leppänen



Juha Karpio



Reino Majala

Authorised Public Accountant



Iivo Polvi

Chartered Public Finance Auditor  
Approved Accountant



Matti Saarinen



./ Kalervo Virtanen

Authorised Public Accountant

## SITRA'S PUBLICATIONS 2001

## PRINTED PUBLICATIONS

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**Eurokäsikirja (Euro Handbook)**  
 PS-kustannus  
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**Valtavirran tuolla puolen – Nuorten yhteiskuntaan kiinnittymisen kitkat 1990-luvulla (Outside the Mainstream – Difficulties Encountered by Young People in the 1990's)**  
 Nuorisotutkimusverkosto/  
 Nuorisotutkimusseura  
 Sitra 241

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 Edita Oyj  
 Sitra 246

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## Other publications

(Sitra on the Internet)

**Finland 2015 – Factors of Success and Challenges in Finland's Future 2**  
 Finland 2015 programme 2, final report

**Finland 2015 – Factors of Success and Challenges in Finland's Future 3**  
 Finland 2015 programme 3, final report

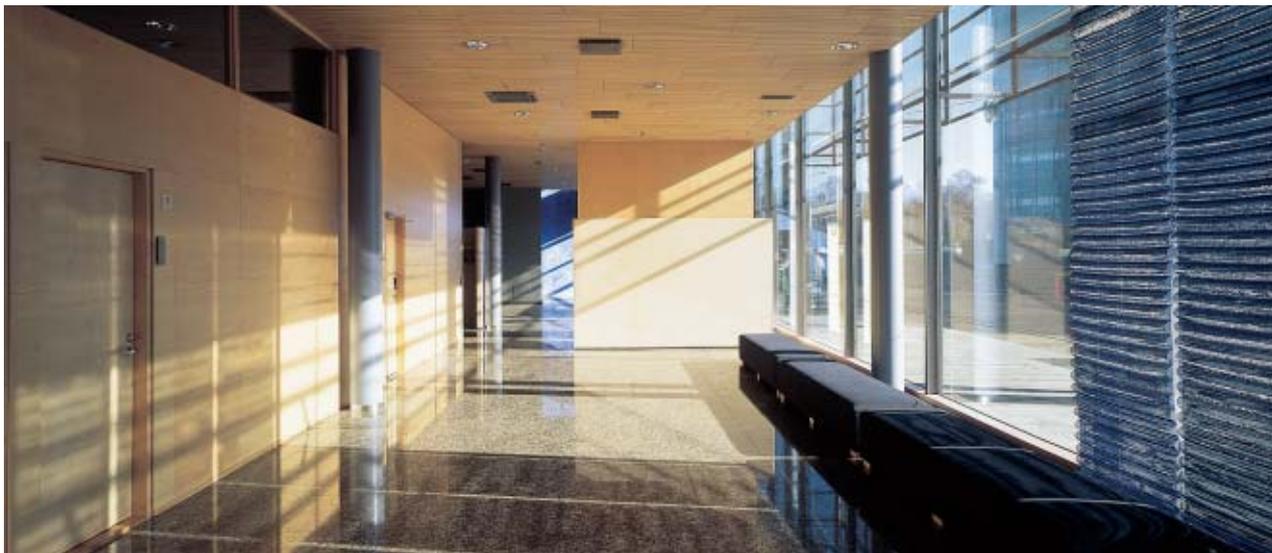
## PUBLISHED ONLY ON THE INTERNET

(www.sitra.fi)

Matti Mörttinen & Leena Paldán (eds.)  
**Handbok om euro (in Swedish)**  
 PS-kustannus  
 Sitra reports 18

Antti Hautamäki  
**Finland in the Face of Change – A Report on Finland's Challenges**  
 Sitra reports 19

## VIEWS FROM SITRA'S HORIZON



The granite floor of the entrance hall, the stuccoed walls and service counter create a modern atmosphere. Ritva Puotila's textiles make their own contribution to the interior.



Sitra's office tower was designed by the Pekka Helin & Co. firm of architects.



The architects designed the furniture for Sitra's special conference rooms; this was then made by Finnish woodworkers at Fiskars.



The library on the 12th floor also serves as a meeting place for Sitra's personnel.



The design of the office premises takes into account the nature of the work done there. Some of them are of the open-plan type while others are of the traditional type.



The well-equipped conference rooms serve both Sitra and Sitra's partners.



On the stuccoed wall of the 15th floor there is a painting, Vaitinainen ('the silent woman'), by Eeva Tiisala.



An example of an 11th-floor office.



Cor-Ten steel, which was awarded the steel structure prize in 2000, has been used in both the frame and the details of the building.

## SITRA'S NEW VIEWS 12 FEBRUARY 2001



*"What are Sitra's and Finland's five strengths? They are our excellent technological know-how, the breadth and depth of our culture, national unity, our basic values and the welfare society built on them, and our international peace-keeping efforts."*

Quoted from the speech made by Riitta Uosukainen, speaker of the Finnish Parliament, at the inauguration of Sitra's new premises on 12 February 2001





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