The year 2007 was SISTER’s seventh year as an independent policy research institute in Sweden. It has been an intensive and rewarding year, with new customers, new collaboration arrangements and new employees. Below are a few examples of the major projects carried out throughout the year and a brief look at the way forward.

The knowledge sector is undergoing profound transformation both in Sweden and elsewhere in Europe, and one aspect of this is adaptation to a more competitive regime. This ongoing transformation is also reflected in the composition of SISTER’s research portfolio and in various assignments conducted throughout the year.

The two-year project together with Chalmers University of Technology and the Research Policy Institute in Lund, on the challenges facing Swedish and continental universities and colleges, has been finalized and a book will be published by Edward Elgar Publishing in 2008 with the title *European Universities Learning to Compete*. The book contains contributions from several Swedish authors as well as international scholars and is intended to address a set of larger questions about how continental and nordic universities will have to adapt to and embrace the new competitive regime and seek alternative strategies. The project has also generated a book designed to promote debate on the various research policy challenges a small open country like Sweden faces under this new competitive and international regime.

The focus on universities can be seen in a number of different projects. Internationalization continues to be a major driver transforming universities from social institutions to knowledge businesses. For instance, the Royal Institute of Technology (KTH) in Stockholm assigned SISTER to conduct a risk analysis of an invitation to build and run a full-scale offshore technical university in Pakistan. The new competitive landscape is also putting pressures on the internal organization of universities and several studies have analysed the resulting impacts on career planning and the recruitment of research personnel.

Research policy has always been an important topic for the Institute. The two short articles presented in the annual report address two aspects that are currently being intensively discussed in Sweden. The first article, by Lars Geschwind, presents some results of a major study on the development of the humanities in Sweden. The new competitive regime is affecting all disciplines to varying extents and the study maps the specific challenges and impacts on the humanities. A key observation is that faculties at various universities in Sweden have started to embrace and adapt to the new more competitive logic. The new regime will probably not lead to greater homogeneity but rather work as a strong force pushing universities towards greater specialization. Thus, questions about what to prioritize and how to set priorities will continue to be a key issue for both universities and government. The second article by Anki Dellnäs presents experiences from
Austria, the United Kingdom (UK) and Denmark, and the analysis indicates that these countries are searching for and experimenting with various practices for setting priorities.

Evaluation is a core business for a policy institute, and the competitive regime seems to favour impact studies. During 2007 SISTER evaluated several research schools initiated by the Swedish Foundation for Strategic Research (SSF), with an emphasis on how these schools have interacted with industry. Two major impact studies using new theoretical perspectives and quasi-experimental designs were also conducted. One of these studies analysed the impact on turnover and employment of a large government seed-financing scheme and the second analysed the socio-economic impact of three environmental research programmes originally set up by the Foundation for Strategic Environmental Research (MISTRA) some ten years ago.

The focus on research and innovation policy will continue in the year ahead but I am also very happy to announce a new one-and-a-half-year research project on higher education. The project will look more deeply into how the Bologna Process has been implemented in the Swedish context. Key concepts are employability, the movement of students within and between courses and disciplines, the European dimension, and the relation between research and undergraduate teaching. In 2008 SISTER will also launch two new Institute programmes, one on the internationalization of higher education and one on the issue of the scale and scope of universities in a more intense competitive context.

The transformation of the sector towards a more competitive learning regime will continue to provide SISTER with exciting opportunities for new research and studies. But SISTER has to change as well. I am happy to intensify our cooperation with our partner institute NIFU STEP (the Norwegian Institute for Studies of Research and Education/Studies in Innovation, Research and Education) in Norway. In 2007 SISTER also signed a cooperation agreement with the Institute for Research Information and Quality Assurance (Institut für Forschungsinformation und Qualitätssicherung) located in Bonn. The new agreement will allow our institutes to set up joint projects, organize workshops and seminars as well as an exchange of researchers in the future.

Clearly, 2007 has shown an increased demand for more, well-grounded research and analysis by SISTER researchers. As we enter 2008 SISTER will be prepared to serve as a source for advancing changes and new strategies and help key players adapt to new opportunities.
Over the years, the conditions for research within the humanities have generated strong opinions, often elegantly expressed in the public debate. However, while various myths and anecdotes have served as “facts”, there has been a lack of systematic, empirical studies on the topic. SISTER has therefore undertaken a study of the structural conditions in the field of the humanities in the current Swedish research landscape.

One overall impression is that the study was conducted in a period of change, including demographic change. The expansion of the sector has come to an end. In recent years student numbers have decreased, and so has research funding. In five years’ time almost 40 per cent of professors in the humanities will retire. The following combination of features is emerging – fewer undergraduate students and PhD students, a big increase in the numbers of senior lecturers and professors, and fewer postdoctoral posts.

The study of PhD students in the humanities early on in their careers underlines the fact that there are too many people in the system in relation to resources available. The big output of researchers in the past has resulted in insecure career opportunities and fierce competition for posts and research funds. Most of the respondents stress that academic work is stimulating and rewarding, although a majority of them want more time for research and would like to spend less time on undergraduate teaching. The current situation, however, puts many people in teaching-only positions, especially at the young universities. Apparently, humanities doctoral training prepares students, at least mentally, for research rather than teaching, and even less for administration and management. Another explanation is that research results are crucial for a successful academic career. Getting stuck in teaching and administration jeopardizes career progress.

The results from the web survey confirm other studies which show that international mobility is rather low. One reason is the family situation for many PhDs: partners and children are not always easy to move. Another, more worrying explanation is the competition for posts. It is considered more strategic to remain at the host institution and establish crucial personal contacts. A number of respondents argue that the dependence of senior researchers for future career prospects is big and increasing. Some even refer to feudal structures in academia.

Alongside this investigation, a number of state committees have been running, including reviews of the Swedish resource allocation system, the academic career system and the legal status of higher education institutions (HEIs). The results from these committees will restructure the entire research sector, including the humanities. However, several institutions are being proactive in this development. For instance, our results show that the faculty boards increasingly base their allocation of funds on previous performance. The most common indicators in use are staff competence, number of new PhDs, amount of external funding and number of publications.
The research conducted should aim to reach internationally recognized levels. This in turn has led to more focus on profiling activities, publication strategies, internationalization, ex post evaluation and internal follow up-systems. Other consequences are the strategic recruitment of researchers and great efforts to increase external funding. One can conclude that many activities at the institutions aim at getting “pole position” when the time has come for a new, restructured sector.
In recent years, increasing attention has been paid to the issue of what kind of research should be given priority. In the rhetoric of policymakers, science and innovation are often described as the heart of the current transformation of the global economy, and there is fierce competition, not least among European countries, for the position of best in the world for science. Current expectations of science mainly concern its usefulness and relevance to societal needs. Hence the demand for more efficient and reliable procedures for national priority setting in research is increasing. The trend is global: in almost every Western nation, governmental bodies, and in particular ministries responsible for scientific research, are seeking better practices for setting priorities for publicly funded research. The recent changes in research policy agendas in Europe have focused on the development of more efficient structural and institutional conditions for the entire research and innovation system. This applies to all the countries investigated in an independent study conducted in the context of Research and Innovation Foresight, work done by IVA and VINNOVA. The report: Forskningsprioriteringar: Hur, vem och vad? Exempel från Danmark, Storbritannien och Österrike [Setting research priorities: how, who, and what? Examples from Denmark, Great Britain and Austria]. The most important reforms in the three countries were:

- The allocation of public funding for research is based on competition and quality assessment.
- The public resources for research have increased at the same time as the demand for collaboration between industry and academia has become stronger.
- Performance and developing contracts between universities that have become more autonomous, on the one hand, and the state, on the other hand, is a type of reform where universities’ ability to set priorities for research is important. This reform has led to universities merging and to greater differentiation of research profiles.
- The interest in thematic priorities has increased on both the national and the regional level.

Another finding was that the contexts shaping the implementation of research policy agendas were very different in the three countries. This was the case with respect to the way in which the science and innovation policy system is organized, and to the way in which key global and domestic research areas such as climate change, energy and ageing have been addressed by governmental bodies. Interdisciplinary research programmes involving several research councils or departments of state have been more frequent during the last decade, for example, the Technology Strategy Board in Great Britain or the Strategy Research Council in Denmark. In those bodies collaboration with industry is a requirement, not just collaboration from different scientific disciplines. A similar
development is taking place in Sweden, and a recently published inquiry (SOU 2008:30) suggests the establishment of a new unified body responsible for all the research councils, science policy strategic intelligence and internationalization.

The different models for priority setting are often concerned with how to establish and develop knowledge and innovation collaboration between universities, corporations, funding bodies and society. The main conclusion from the countries studied above clearly indicates that everyone is trying to develop priority processes that better reflect those circumstances, but it is also unequivocally clear that no quick or easy way of doing this exists.
STRATEGIC INSTITUTE PROGRAM:
THE BOLOGNA PROCESS IN THEORY AND PRACTICE

By Anki Dellnäs  Senior Researcher

In Europe, 1999 became an important year in the field of Higher Education. Ministers of Education of 29 European states met in Bologna with University leaders from all over Europe to discuss the further development of higher education in Europe. The vision to develop a European Higher Education Area (EHEA) within the year of 2010 was stated in their post-summit declaration - The Bologna Declaration. After the initial Bologna meeting, the Ministers have met every other year continuing the discussion and add more action lines. Between the Ministerial Conferences, a Bologna Follow-up Group (BFUG) have been monitoring and securing progress through regular meetings. The Bologna Process is driven ahead by several actors. On the national level, every participating country (today’s number is 46) have their own organization of Bologna experts with the aim to work with the implementation process by being a platform for discussions and knowledge exchange for higher institution staff.

Nearly ten years ahead from the initial meeting the Bologna Process is often described as the most influential reform of the higher education system in Europe ever. The International Educator Supplement 2007 called the process the ‘Big Bang’ in European higher education. Undoubtedly, the Bologna Process is an interesting and important reform to study.

The Bologna Declaration has three overarching objectives:

• the promotion of mobility
• the promotion of employability
• the promotion of Europe as the most competitive and attractive area for education in the European Higher Education Area (EHEA)

These overarching objectives are broken down into six operational goals:

• Adoption of a system of easily readable and comparable degrees and to promote the introduction of a Diploma Supplement. The aim with the Diploma Supplement is to increase the student’s employability and the international attractiveness of the European higher education.
• Adoption of a system essentially based on two main cycles in undergraduate education (basic and advanced level)
• Establishment of the European Credit Transfer System (ECTS),
• Promotion of mobility for students and academic and administrative staff
• Promotion of European cooperation within the field of quality assurance,
• Promotion of the European dimension in higher education.
THE PROGRAM

The Bologna process has undeniably affected the higher education system in Sweden in several aspects, for instance the launching of a new degree system in July 2007. The overarching goal with the Strategic Institute Program *The Bologna Process in Theory and Practice* is to study what the reform actually has meant for the every-day life in the academia, for academic as well as for administrative staff. Hence the analyze of the implementation of the Bologna process will be conducted at the three main categories of higher education institutions existing in Sweden today; the research university, the university college with right to award the two-year master and doctoral degrees in a particular scientific area, and finally the university college without general right to award the two-year master. To follow the implementation process we will focus some of the key themes and concepts in the Bologna Process; employability, the European dimension, the ECTS-system and the progression within and between the basic and advanced level in undergraduate education.

The purpose of the first study is to examine the concept of employability, both theoretically and empirically. How have universities and university colleges defined the concept of employability? Many of them have started career centers and different alumni activities as one way to follow up what happened with their students after graduation. But there is also a movement towards trying to involve more interaction with societal institutions, NGO:s and firms into subject courses that are non-vocational to expose students for ‘real life’. Here, the American model of internships can be one way of increasing the interaction. Data in the inquire consist of relevant literature, official documents and interviews with academic staff at universities and university colleges.

While studying the European dimension we will analyze arguments within the Bologna Process for creating a European Higher Education Area with a special European dimension and investigate how this aspect have been noticed, or not noticed, at the university level. In this study we will also cover the reactions of the Bologna Process outside Europe. The studies of the ECTC-system and the progression within and between the basic and advanced level will be conducted during the fall.

Some of the themes that will be investigated in the program will be in collaboration with a couple of Swedish Universities and University colleges, i.e Malmö University College, Uppsala University and Gotland University College.

The program has a two level comparative approach, between different universities and university colleges and between a variety of educational programs (vocational and non-vocational) and single subject courses. The international perspective is also a crucial aspect in the program though the Bologna process impact reaches across continental boundaries. In a world ‘that is flat’ according to Thomas Friedman, changes of the magnitude of Bologna cannot help but be global in nature. With 46 signatory countries, Bologna impacts nearly a quarter of the world’s nations directly and the majority of the higher educational systems in developed countries.

The different studies within the program will contribute to an increased understanding of how a huge educational reform, the Bologna Process, has been interpreted and implemented into different types of higher education institutions. By focusing on different aspects of the process we will cover a broad area of interest.

PROGRAM ACTIVITIES

The result will be presented in several forms through reports, workshops and open seminars. An edited volume with contributions from academic staff that has been active in the implementation process and/or the program is planned during 2009.

The principal funders are Bank of Sweden Tercentenary Foundation and The Knowledge Foundation.
RESEARCH & ASSIGNMENTS 2007

Since January 2004 the Institute has been working according to a three-year programme of activities. Several of the major research programmes and assignments we conducted during the year are in their final phases or have recently been concluded. Clients who commissioned the projects carried out in 2007 include among others the SSF, The Knowledge Foundation, STINT (Swedish Foundation for International Cooperation in Research and Higher Education), RJ (Bank of Sweden Tercentenary Foundation) and VINNOVA (Swedish Agency for Innovative Systems).

Research activities and assignments in 2007 included developing projects already in progress and establishing new ones. Several projects in 2007 looked into the modes and effects of cooperation between industry and academia. Specifically we asked why companies choose to collaborate with academia. Another major theme has been the new ways of organising research and how it affects evaluations of different large scale research programmes. A decision in 2007 were also taken by the board to establish three new strategic institute programmes and the first will be a one and half year project looking into the implementation of the Bologna Process in theory and practice. The other two are under development and will be launched in 2008.
PROJECTS IN 2007

Centre of Excellence – Stockholm Centre of Innovation Studies, CESIS
(in progress)

CESIS is a long-term venture involving scientific studies of the connections between, driving forces behind, and effects of basic academic research, corporate research initiatives and development activities, technology development and innovations. The innovation initiatives of Swedish companies are the main focus of the research being carried out within the framework of CESIS. CESIS was established in cooperation with KTH, the Jönköping International Business School and SISTER.

Funding: the Swedish Governmental Agency for Innovation Systems (VINNOVA)

The Internationalization of Swedish Research
(in progress)

In 2004 SISTER started a major research project on this subject. The change in the extent of international research cooperation is posing new challenges and setting new tasks for Swedish research, the Swedish universities and Swedish research policy. There is currently an increasing awareness that Sweden needs to respond to this change. Neighbouring countries, in particular Finland and Denmark, place much greater weight on encouraging and systematically developing international research contacts. The systematic interplay with the European Union (EU) system is of course one important element; the building up of bilateral contacts with other countries of particular interest is another.

There are therefore strong research policy reasons for Sweden to develop and formulate a policy on how we should cooperate with the world around us and what kind of support or stimulus is needed. Do we need new funding instruments? Do international contacts need particular encouragement? Are we making the best possible use of EU research funding? Should we be doing more on questions of climate change, disease and poverty?

A preliminary report on the policy conclusions was presented and discussed in June 2007. During the autumn work concentrated on an analysis of the universities and funding agencies and how they handle international collaboration. It will be reported at two seminars during spring 2008 and the project will be concluded during 2008 and published in a monograph.

Funding: the Bank of Sweden Tercentenary Fund (Riksbankens Jubileumsfond, RJ), SSF, the Swedish Foundation for International Cooperation in Research and Higher Education (STINT) and VINNOVA
Knowledge Environments of Tomorrow – New Conditions for Universities and Their Effect on Innovation and Industry (UNI-KNOW)

This project is SISTERS’s strategic research programme. It aims to develop an understanding of the impact of systemic changes in the research and education system in Sweden. Numerous papers and drafts were produced during 2005 to 2007. In 2008 two edited books will be published. One, slightly more popular in nature, aims to discuss the future of the Swedish research system, and is edited by Sverker Sörlin and Mats Benner. The other presents the academic results of the UNI-KNOW project. Several international writers will contribute to the edited volume, in addition to the members of the project. The book will be edited by Maureen McKelvey and Magnus Holmén.

These two perspectives, academic and popular, will be integrated at the UNI-KNOW conference: European Universities Learning to Compete in June 2008 in Stockholm. Both scholars and practitioners will be invited to participate in the discussion of Swedish academia. The conference will conclude the UNI-KNOW project.

Funding: the Knowledge Foundation, RJ, SSF and STINT

Follow-up Research on Strategic Research Centres – An Initiative of the Swedish Foundation for Strategic Research

SSF is creating strategic research centres to promote innovation and internationally competitive research in line with developments in Europe. SISTER has been assigned to conduct follow-up research on a number of these centres. The intention is to clarify how the goals relating to patents, enterprise and number of scientific publications will be reached and to examine the mechanisms for the management and governance of a strategic research centre.

The SSF initiative raises a number of questions on the connection between financing, the development of strong research environments and the utilization of research results. The follow-up research project is therefore placing particular emphasis on the important governance issues. These issues should be studied both from SSF’s perspective and from the perspective of the centres. There is always a risk that there will be a confidence gap between the activity level and the policy level, and it is in these situations that follow-up research can be a valuable method of ensuring both a horizontal and a vertical learning process for SSF, the centres, and possibly even the universities.

Funding: SSF
Does University–Industry Collaboration Affect Academia? (SAMP) (in progress)

Numerous scholars have studied collaboration between university and industry. Their work ranges from patent studies via policy studies to structural or systemic approaches. In this project we seek an alternative understanding of collaboration between universities and industry by moving the focus from structural and output-oriented approaches to understanding how collaborative efforts affect HEIs.

The projects consist of four different sub-studies. Peder Karlsson is analysing the interaction between researchers in industry and at the HEIs. Peter Schilling is focusing on the strategy and management perspectives of integrating collaboration as a mission for colleges and universities. The third sub-project is studying the problems of research management at the research group level and is led by Lars Geschwind. He and Maria Johansson are also analysing the links between teaching and research.

Funding: the Knowledge Foundation

Research Funding and Leadership (in progress)

Karolinska Institutet has commissioned SISTER to carry out a study on Swedish research funding bodies’ view on leadership as an assessment criteria. The aim of the project is to cast light on the policies of different funding bodies and their view on leadership in research groups. How do some of our big research funding organizations observe and assess the leadership in the evaluation of research centres, both regarding applications (ex ante) and when the research is completed (ex post)? In order to understand the funding bodies’ view on the impact of leadership, the study will be based on interviews and documentary studies.

Funding: Karolinska Institutet

Studies on Fast-Growing Research-based Companies (in progress)

Innovationsbron AB has commissioned SISTER to carry out a study of the development of research-based companies. The aim is to develop a model of these companies that can help Innovationsbron AB to sharpen its financial instruments, as well as other policy instruments. The project will focus on 15–20 case studies in specific technologies in fields such as medicine and the environment.

Funding: Innovationsbron AB

The New Industry – An Educational Management Programme (in progress)

The KTH Executive School has assigned SISTER to develop an educational management programme on the new structure and development of industry and the implications for industrial and innovation policy. The programme is aimed at policymakers on the national, regional and local levels in the Nordic countries.

Funding: KTH Executive School
Student Follow-ups – A Tool for Developing Education
(in progress)

The purpose of this study is to inspire HEIs and stakeholders to do well-planned and useful follow-ups of former students. The knowledge and experience that former students possess is essential for developing education in line with the demands in working life. The educational programmes in focus for this report are the nursing study programme, teacher training and the biomedical scientist programme. The study consists of an investigation of the work with student follow-ups within these programmes. With examples from student follow-ups, the report also discusses different methods and tools for performing a study. The method most commonly used was surveys, sent out a few years after the completion of studies. Other methods used were hearings, interviews and networking activities.

Funding: the Swedish Association of Local Authorities and Regions (Sveriges kommuner och landsting)

Impact Analysis of “Governmental Seed Funding”, 1994–2004
(in progress)

Since the late 1960s, VINNOVA and NUTEK (the Swedish Agency for Economic and Regional Growth, formerly STU) have provided different forms of seed capital funding. SISTER has studied this process and its outcome for the years 1994–2004. The purpose has been to analyse the impact on the companies that received funding that can be attributed to the funding itself. The study was conducted by a triangulation of qualitative and quantitative methods. Interviews were performed with companies that had received funding and for quantitative purpose linear regression and cohort analyses were carried out.

The study concludes that there are positive effects of governmental seed funding, in growth of employment and turnover, as well as in the building of business platforms. The results show that the outcome is skewed in the sense that a few companies represent the core part of the outcome, what might be called a J-shaped distribution (compared to a normal distribution). Furthermore the report shows that it takes eight to ten years or longer for effects to be palpable. There is no doubt that the seed funding programme at the time filled a gap by financing companies in their early stages. This gap still remains, but for continued funding further thought should be given to the programme’s organization and method of work, as well as to the division of labour in relation to a more developed private venture capital market.

Funding: VINNOVA
Research and Innovation Foresight

VINNOVA and the Royal Swedish Academy of Engineering Sciences (IVA) conducted a Research and Innovation Foresight exercise during the autumn and winter of 2007/2008. Among many activities and studies, three committees were formed, including representatives from the research and innovation system in Sweden, although with different profiles, and the groups were labelled accordingly – “Academy”, “Industry” and “Society”. SISTER’s contribution aims to map out and evaluate different processes and models to develop a comprehensive and common research agenda. One member of staff was responsible for the “Society” committee and two independent studies were conducted in the context of the Research and Innovation Foresight programme. See below.

Research and Innovation Foresight: The “Society” Committee
(in progress)

A vast range of site visits, conferences and group meetings was conducted and arranged in connection with the project. Some 20 interviews were conducted by the project leader with a wide selection of people throughout the research and development (R&D) system, primarily targeting organizations which in one way or another could be seen as representing “the surrounding society” and interests from a similar angle – trade unions, governmental inquiries, non-governmental organizations, the Swedish Church, venture capital firms, research companies and innovation experts, to mention a few. The reference group held discussions and produced a report which was delivered to the management of the Foresight programme.

Funding: VINNOVA and IVA

Research and Innovation Foresight: The Role of Research in Society
(in progress)

IVA and VINNOVA have commissioned the Research Policy Institute in Lund and SISTER to reflect upon the present and future role of research in society. The report will provide a foundation for both organizations’ work on research and innovation.

Research is good for society, but the logic of research processes has changed dramatically over the last few decades. The motive behind the upheaval is a joint process of internationalization and regionalization of both public-sector and industrial R&D. Research and innovations are created in increasingly intertwined and complex processes that cuts across organizational and national borders. The most important question for both large and small nations is consequently how to handle research and knowledge flows in a productive manner within and between nations as well as across and between organizations. A knowledge-based nation which wishes to be successful needs to play two games simultaneously: one to strengthen its own position in a global market, and another to make sure the global system works in best possible way. The report was an independent study conducted in the context of the Research and Innovation Foresight work done by IVA and VINNOVA.

Funding: VINNOVA and IVA
Research and Innovation Foresight: Priority Setting in Science. How, who and what? Examples from Denmark, Great Britain and Austria
(in progress)

Priority setting and the governance of science have become more crucial during the past decade. Intensified concerns about the scarcity of resources, coupled with the growing diversity of the demands made on science, has rendered the need to set priorities, and thereby direct science to where it will do most good and be most useful, more important than ever.

The aim of the report was to study and analyse priority-setting processes in three European countries – Denmark, Great Britain and Austria. The report was an independent study conducted in the context of the Research and Innovation Foresight work done by IVA and VINNOVA.

Funding: VINNOVA and IVA

Evaluation of Research School in Colloid and Interface Technology
(in progress)

SSF has supported several national research schools and research programmes. They have often been organized as national networks, although with some differences between them. Two of those research schools were evaluated by SISTER during 2006, and a third was evaluated during 2007.

In brief, the setting up of the research schools has been very successful. The schools receive the highest appraisal from the participants, doctoral students, and leaders and coordinators of the research. The networking part of the training of researchers is often mentioned as most rewarding and as being of great benefit for the future career of the young researchers. One component which has worked less well is participation from industry; this was one of the main goals of starting the research schools, but, although the interest was there from the start, this has not developed as smoothly as planned. Most of the participants who have graduated from the schools have continued to work within academia rather than within industry.

Funding: SSF
The financial and structural conditions of humanities research have been discussed for years. It has, for instance, been stated by many that research funding for the humanities is too low and lags behind the funding of other scientific areas. SISTER has undertaken an investigation of the prevailing conditions for research within the arts and humanities. The aim is to study its position in the modern research landscape, its flaws and strengths, and its future position. The study is based on both national case studies and international comparisons, using both qualitative and quantitative methods, which results in a three-part study: (1) a review and analysis of the current financial and human resources based on available published statistics; (2) case studies of the biggest environments in Swedish humanities research (mainly faculties) in order to analyse how the available resources are used and distributed; and (3) a study of the conditions of humanities PhDs early on in their careers, based on a questionnaire and group interviews.

The results show that funding for research has decreased in recent years, and so have both students and PhD students, while the numbers of professors and senior lecturers have increased. The faculty boards increasingly base their allocation of funds on performance, which leads to more focus on ex post evaluation and follow-up systems. The third study shows that those at the early stages of a career in the humanities face fierce competition and insecure career opportunities, including insufficient time for research.

Funding: the Royal Swedish Academy of Letters, History and Antiquities, STINT and RJ

CONCLUDED PROJECTS IN 2007

Developing Stockholm as a “Knowledge City”
(concluded)

This research project focused on the development of scientific facilities and their impact on Stockholm’s urban landscape. The project highlighted and contributed to the debate on how to continue to develop the various science regions in Sweden. It also addressed the significance of scientific facilities, of fairly recent origin, from a cultural heritage and cultural environment point of view – an area where there has been little research.

Funding: Formas

Excellence Through Cooperation
(concluded)

Higher education and R&D are among the most important factors for the development of society and the viability of the economic system. Most studies on cooperation between universities and industry are done from the macro-oriented point of view of regions or nations. This study was a micro-level study, focusing upon practical models for university–industry interaction and examining the evolving collaboration needs of a set of companies. It also aimed to make a contribution to the understanding of university–industry relationships by combining insights into two worlds – the commercial context of a firm and the academic rationale of a university. A main part of the project was a benchmarking study of “third mission” activities at universities in other countries. The universities visited include Surrey and Cambridge in the UK, Twente and Delft in the Netherlands, Tufts and the Massachusetts Institute of Technology (MIT) in the Boston area in the USA, and the Ecole Polytechnique Fédérale (EPF, Lausanne) and Eidgenössische Technische Hochschule (ETH, Zürich) in Switzerland.

Funding: the Stockholm County Administrative Board
Evaluation of Three Environmental Research Programmes
(concluded)

The Foundation for Strategic Environmental Research (MISTRA) asked SISTER to analyse the effects of three different environmental strategic research programmes. MISTRA suggested three programmes of quite different characters – KAM, the Eco-cyclic Pulp Mill; SWECLIM, a Swedish regional climate modelling programme; and RESE, remote sensing for the environment. The programmes were all established in the mid-1990s and finished in 2003.

The aim of the evaluation, in addition to evaluating the programmes themselves, was partly to produce a framework for future evaluations of strategic environmental research programmes. This resulted in two different challenges: first, finding and testing a new method for strategic evaluation study through an exploratory process; and, second, achieving an understanding of how strategic environmental research is organized to bring concrete use to its programme as well as evident effects in such way that the results will be put to concrete use.

Funding: MISTRA

Higher Education Institutions and Regions
– A Case Study of Västra Götaland
(concluded)

Europe is seeing a revival of interest in regional governance. For Sweden, which for centuries has been a strongly centralized state, this emphasis on the regional level presents interesting challenges. The Ansvarskommitté (a parliamentary committee) has suggested the introduction of fewer, larger and more influential Swedish regions. The aim of this project was to initiate a discussion on a particular aspect of these challenges – the relations between regions and HEIs. Västra Götaland is one of two experimental regions, with bigger budgets and extended responsibilities. The study examined the consequences of the new regional organization for HEIs in terms of their interaction with each other as well as links with regional partners. It was conducted through documentary analysis, statistical information and interviews with key persons. The results show that the relationship between the region and HEIs is a tentative one. Most interactive efforts have been constructed around the building of relations of trust. Where the interaction between HEIs is concerned, there are still many obstacles and challenges. They are all related to the fact that HEIs are multifaceted organizations, driven by different agendas and rationales, for instance, market-driven competition and state regulation.

Funding: IVA, RJ and the Västra Götaland Region
Evaluation of Promotion and Recruitment Strategies at KTH
(concluded)

The strategies for promoting and recruiting staff at KTH have been evaluated through a survey carried out among the staff as well as a number of interviews. In addition, some international comparisons were carried out. Recruiting and keeping highly qualified key individuals is an increasingly important task and a future challenge for a university which aims to be on the front line of research and education. The evaluation shows that the level of satisfaction with the promotion reform of 1998 as such is in general good, but there are occasional differences between those who hold lecturer positions and those who have already been promoted to professor. There are also signs of too much internal promotion to the professor level and too little external recruitment, which may lead to “inbreeding”. More careful recruitment of junior staff is recommended in order to provide good career opportunities and attract talented people to the university.

Funding: KTH

Evaluation of Research Schools in GLIBS
(Glycoconjugates in Biological Systems) and Neuroscience
(concluded)

SSF has supported several national research schools and research programmes. They have often been organized as national networks, although there are some differences between them. Two of those research schools were evaluated by SISTER during 2006.

In brief, the initiative of setting up the research schools has been very successful. The schools receive the highest appraisal from the participants, doctoral students, and leaders and coordinators of the research. The networking part of the training of researchers is often mentioned as most rewarding and as being of great benefit for the future career of the young researchers. One component which has worked less well is participation from industry; this was one of the main goals of starting the research schools, but, although the interest was there from the start, this has not developed as smoothly as planned. Most of the participants who have graduated from the schools have continued to work within academia rather than within industry.

Funding: SSF
Cooperation with NIFU STEP in Oslo: Project about Research Careers ("Rekruttering til norsk forskning – status og framtidig behov")
(concluded)

The Norwegian research institute NIFU STEP conducted a study of research careers and recruitment patterns in the Norwegian science system. SISTER contributed to the project with comparative official Swedish statistics, primarily regarding graduate students and the subsequent postdoctoral period. Data were collected from various sources and the report presents a solid compilation of information with respect to Swedish graduate education and the postdoctoral period during the late 1990s and early 2000s. In addition, corresponding Danish data were included in the report.

Funding: NIFU STEP

Review of SPIDER’s Funding of ICT Collaboration
(concluded)

SPIDER, the Swedish Programme for ICT in Developing Regions, was created in 2004 as an academic centre for supporting various developments in information and communications technology (ICT) and research on ICT in developing countries. The Swedish International Development Cooperation Agency (Sida) is the main sponsor of SPIDER and the centre is located at the Department of Computer and Systems Sciences at KTH in Stockholm.

The purpose of the evaluation was to review the results and effects of the ICT collaboration projects with Swedish partner universities, in particular the project results and the experience of the first two rounds of project funding, and to give SPIDER input to help it decide whether it should fund a third round of applications for the period 2007–2009.

Funding: SPIDER

Evaluation of Collaboration between KTH and the Stockholm Institute of Education
(concluded)

These two institutions have been commissioned by the Swedish Government to develop teacher training in natural sciences and technology over a five-year period (2002–2007). The most visible result of the collaboration was the “Engineer and Teacher” Master’s programme, leading to double degrees and a possible future career in both professions. Students following the programme were surveyed and interviews were conducted with many of the stakeholders involved. The evaluation shows that, despite cultural differences between institutions, the collaboration has been successful. The data reveal that students are satisfied with the education provided, but also that internationalization, research links and marketing can be developed further.

Funding: KTH and the Stockholm Institute of Education
Why do companies cooperate with universities?
(concluded)

Commissioned by the Association of Swedish Engineering Industries (Teknikföretagen), SISTER has undertaken a study of how the research funding provided by the Swedish Government can create beneficial conditions for enhancing the competitiveness of Swedish industry. SISTER has interpreted this question with reference to recent signals from the Swedish Ministry of Education and Research about the need to develop “elite” universities and to strengthen the emphasis on research excellence, as it is perceived by the research community. The likely consequences of such a strategy are that research funding will be concentrated in researcher-led bodies and in fewer research environments than today. How would such a development affect the direct interchange between the public-sector research system and the engineering industries?

This study is based on interviews with 19 R&D executives in the Swedish engineering industry as well as 10 researchers who were identified by this group of executives as representative of particularly valuable research environments. The study indicates that almost two-thirds of workplaces in the Swedish engineering industry participate in some form of knowledge exchange with publicly-funded research at universities, university colleges and research institutes. One can also see strong indications that these firms regard such activities as an important strategic issue for the future. Sixty-four per cent of the respondents to our survey believe that collaboration with public research institutions will have become more strategically important in ten years’ time compared to the current situation.

Funding: the Association of Swedish Engineering Industries (Teknikföretagen)

Contribution to the Academic Career Inquiry
(concluded)

Between April 2006 and November 2007, the governmental Academic Career Inquiry (Befattningsutredningen U 2006:08) investigated the national academic career structure. The inquiry concluded its work with a report entitled Karriär för kvalitet [Careers for quality] (SOU 2007:98), containing proposals regarding a restructuring of the academic career and the various available positions at universities in Sweden.

SISTER was contracted by the inquiry to carry out two separate studies. The first was an analysis of national statistics regarding postdoctoral positions and the situation for PhDs in the postdoctoral phase of their career. The analysis shows some differences between women and men regarding job mobility, as well as differences between disciplines. The second was a study and evaluation of the position of assistant lecturer (biträdande lektor), which had been tested for some time at Swedish universities. Some 110 individuals held such a position during the test period. Interviews as well as a web-based survey were conducted. Positive as well as negative features of the position are described. In general, the study gives strong support to the permanent establishment of the position at Swedish universities.

Both studies are included in the inquiry’s final report, Karriär för kvalitet.

Funding: the Ministry of Education and Research
During the past decade there have been dramatic changes in the field of health research for development. Not only has the field been characterized by a marked increase in the amount of attention it has attracted generally and by the emergence of numerous new organizations and initiatives; but there has also been significantly increased investment and new donors have entered the scene from both the public and the private sectors. One of the biggest changes in health research in the past decade has been the increasing influence of philanthropic foundations such as the Bill and Melinda Gates Foundation, now providing annual grants totalling about USD 1.5 billion per year (expected to double in the next two years).

Through the thematic portfolio, for many years SAREC (Sida’s Department for Research Cooperation) has supported several health research networks, regional and international organizations, and related Swedish research. Sida felt that there was a need to more systematically address the present modes of work in relation to these fundamental changes in the aid field in order to formulate a novel strategy for health research support. The task included a systematic review of SAREC’s history of providing grants for Swedish research related to health, and interviews with key stakeholders, including university representatives and beneficiaries of SAREC support, other government agencies and policymakers. A comprehensive analysis of the Swedish scientific publications over a 10-year period was carried out. On the basis of this, interviews and other material, a set of six areas were identified where Sweden at present shows particular strengths.

SAREC was recommended a dual strategy of focused support to these areas, combined with relatively small grants to high-quality and relevant research over the whole health research field.

Funding: Sida

KTH had been invited by a Pakistani ministerial organization to establish a technical university in Pakistan, with full cost coverage from the Pakistani Government. SISTER was appointed by the KTH Board to conduct a risk analysis with respect to the effects on KTH’s reputation and “brand” of becoming involved in such a vast and long-term project. One also tried to estimate what effects the comprehensive work with a Pakistan Sweden University might have on other international activities that KTH is engaged in.

SISTER’s analysis gave support to the idea of establishing abroad in a larger scale, but concluded that the project management ought to be professionalized, as well as being given increased resources. Our judgement was that the risk of negative effects on KTH’s brand and reputation is low. Neither the character of the project in itself nor a partial or complete failure of the project is likely to have other than minor effects on KTH’s brand and reputation. On the contrary, we believed that the brand and reputation of KTH would be strengthened by increased international engagement and increased international visibility. However, SISTER strongly advised KTH to carefully follow political developments in Pakistan during the months to come and to intensify connections with the Ministry of Foreign Affairs and the Swedish Embassy in Islamabad.

As the political situation in Pakistan became very tense shortly after the report was finished, and has continued to be so in 2007, a continuation of the project would in practice have been impossible regardless of SISTER’s recommendations. Whether it can be restarted at a later stage, either partially or fully, is an open question.

Funding: KTH
Is there Scope for a pan-Nordic Management Education?
(concluded)

The KTH Executive School, the Helsinki University of Technology (TKK) and the Scandinavian International Management Institute (SIMI) have conducted an inquiry of five different branches of industry – consulting, manpower services, media, healthcare services, and transport and logistics. The report investigated whether the conditions exist for pan-Nordic management education programmes to be organized aimed at high-level employees who face important strategic changes. The purpose of the study was to provide a snapshot and overview of some broad business sectors and the most important trends that affect them, as well as to provide Nordic providers of management education with a platform that can serve as a basis for discussion.

The analysis contains a summary of the size of the different branches, presenting statistics regarding numbers of employees, turnover and number of businesses. Interviews were conducted with leading businesses to investigate the importance of brands, the companies’ ability to develop new structures, and the value of customer-oriented policies and competence-building among the employees.

Funding: SIMI

Evaluation of the Centre for Learning in Sustainable Development at the Stockholm Institute of Education
(concluded)

The Centre for Learning in Sustainable Development was evaluated through a combination of interviews and documentary analysis, including a self-evaluation report written by the centre’s management. At the time of the review the centre had been up and running for two years. The study showed that its staff had been very active in developing this new field, but that the aims of the centre were too broad and out of proportion to the resources available. The focus should have been more on how to secure future funding, not least from external sources. We also found that the research competence should have been higher.

Funding: the Stockholm Institute of Education
COMMUNICATION 2007

In 2007 SISTER employees published articles in international and Swedish journals and contributed policy reports and other materials to the Swedish debate. The staff have summarized results and policy implications in articles, interviews, the press and through the broadcasting media. They have also published books and participated in studies. A list of SISTER’s 2007 publications follows below.

In 2007 SISTER published 16 working papers, which are also available on the website. Through the SISTER Alert newsletter, which is published in both paper and electronic format, SISTER provides information about these publications as well as its other activities. SISTER Alert is based on current events and provides links to the Institute’s website, which is regularly updated. SISTER continued to develop its seminar series in 2007 into a much-appreciated discussion forum and an open meeting place for researchers, publicists, government officials and politicians working in this area.

PUBLICATIONS 2007

The Newsletter
SISTER Alert – a newsletter from the Swedish Institute for Studies in Education and Research is distributed in printed format to around 1,200 subscribers and via email to around 2,600 subscribers. In 2007 SISTER published one paper and two email newsletters.

The newsletter provides information on current publications, seminars and other activities with which the Institute’s staff members are involved. Following distribution and publication of the newsletter, the activity on the website intensifies greatly in the form of more orders for reports, applications to attend seminars and new subscribers.

SISTER Alert works with various art and museum institutions to produce the cover pictures. In 2007 the cover pictures were of art exhibited by International Museum of Science and Technology.

Reports

Working paper 2007:73
Räcker det med forskning i världsklass?
– Nya perspektiv på teknikföretagens samarbete med offentligt finansierade forskningsmiljöer
Anders Broström & Enrico Deiaco

Working paper 2007:72
Forskning, innovation och samhälle
– Ett sammanflätat system i snabb omvandling
Mats Benner, Enrico Deiaco & Olle Edqvist

Working paper 2007:71
Det bästa av två världar? – Utvärdering av samarbetet mellan KTH och Lärarhögskolan i Stockholm med syfte att utveckla lärarutbildningar med teknisk och naturvetenskaplig inriktning
Lars Geschwind & Fredrik Scheffer
Working paper 2007:70
Policyprojekt och kunskapsområde – Utvärdering av Centrum för lärande i hållbar utveckling vid Lärarhögskolan i Stockholm
Lars Geschwind

Working paper 2007:69
Att få kunskap använd – en utvärdering av tre Mistraprogram
Enrico Deiaco & Maria Johansson

Working paper 2007:68
Reviewing applications by women: Critical use of additive and reasoning evaluation methods
Göran Melin

Working paper 2007:67
Review of SPIDER's funding of ICT Collaboration – Projects with Swedish partners
Olle Edqvist

Working paper 2007:66
SSF:s satsning på strategiska forskningscentra – En analys av bedömningsprocessen
Peter Schilling

Working paper 2007:65
Riskanalys av KTH:s engagemang i Pakistan Sweden University
Enrico Deiaco & Göran Melin

Working paper 2007:64
Gräddfil eller B-lag? Undersökning av anställningsformen biträdande lektor
Göran Melin & Fredrik Scheffer

Working paper 2007:63
Collaboration for competitiveness – Towards a new basis for regional innovation policy
Anders Broström

Working paper 2007:62
Vad kan Staten lära av en effektanalys av såddfinansieringsprogrammet? – En förstudie
Anders Broström, Karla Anaya-Carlsson, Enrico Deiaco & Fredrik Scheffer

Working paper 2007:61
Högskola och region – ett trevande förhållande. Reflektioner över exemplet Västra Götalandsregionen
Enrico Deiaco, Anders Broström & Lars Geschwind

Working paper 2007:60
Den postdoktorala perioden för doktorsexaminerade läsåret 1998/99
Karla Anaya-Carlsson & Göran Melin

Working paper 2007:59
Fallstudie av en neurovetenskaplig forskarskola. Utvärdering av SSF:s satsning på National Network in Neuroscience
Fredrik Scheffer, Åsa Smedberg & Göran Melin

Working paper 2007:58
Fallstudie av en biomedicinsk forskarskola. Utvärdering av SSF:s satsning på programmet Glykokonjugater i biologiska system
Fredrik Scheffer & Göran Melin
Other publisher / publications (reports, articles, books)

**Firms' rationals for interaction with research universities and the principles for public co-funding**
CESIS working paper 115
Article by Anders Broström

**Forskarrekruttering i Norge – status og komparative perspektiver**
NIFU-STEP Rapport 2/2007
Report by Göran Melin och Linda Blomkvist

**An exploratory study of the feature of Iranian co-authorships in biology, chemistry and physics**
Scientometrics
Volume 72, Number 1/2007
Article by Göran Melin

**Shaping Strategic Research: Power, Resources and Interests in Swedish Research Policy**
Minerva – A Review of science, learning and policy
Volume 45, Number 1/2007
Article by Sverker Sörlin (KTH/SISTER) och Mats Benner (FPI and Associated Researcher at SISTER)

**Profilerade europeiska universitet**
FORSKNINGSPOLITIKK
Article by Enrico Deiaco

**Kunskapsförmedling**
(301–336)
Så jobbar Sverige – kartbilder av det moderna näringslivet i Sverige
Studentlitteratur
Chapter by Enrico Deiaco

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**Teknisk och kollektiv forskning i samförståndets land**
(203–215)
Då förändras Sverige 25 experter beskriver drivkrafter bakom utvecklingen
Studentlitteratur
Chapter by Enrico Deiaco & Göran Reitberger, KTH

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**SEMINARS 2007**

In 2007 the Institute arranged or co-arranged the following conferences/seminars with external participation:

**Research, Innovation and Growth – A Business Perspective**
Time: 18 October 2007, 15h.00 – 17h.00
Venue: SISTER
SISTER co-arranged one seminar in 2007 with CESIS about the links between research, innovation and growth. At the seminar, innovation and its relevance from a business point of view were discussed. The focus was on presenting the most important results rather than describing theory or statistical methods.

Speakers at the seminar:
Bo Carlsson (Weatherhead School of Management, Case Western Reserve University) spoke about Knowledge, Entrepreneurship and Economic Growth
Martin Andersson (Internationella Handelshögskolan Jönköping, CESIS) discussed Innovation, Productivity and International Competitiveness
Anders Broström (SISTER) spoke about Why business and academia cooperate.
**Lokal forskningspolitik**
Time 21 August 2007, 10h.00 – 12h00
Venue: SISTER
All around the world, universities and colleges of further education are facing increasing pressure to change. As academic research is becoming more integrated with political, economical and societal processes, the universities are confronted with new challenges. Traditional research policy is today moving in the direction of becoming a more broadly formulated innovation policy.


Commentator: Kjell Blückert, Research Secretary at RJ

**Internationalization of Swedish Research**
Time: 11 June 2007
Venue: the Swedish Foundation for Strategic Research
Olle Edqvist at SISTER introduced the theme Internationalization of Swedish Research.

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**ACRONYMS AND ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESIS</td>
<td>Centre of Excellence – Stockholm Centre of Innovation Studies</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
</tr>
<tr>
<td>IVA</td>
<td>Royal Swedish Academy of Engineering Sciences (Kungliga ingenjörsvetenskapsakademien)</td>
</tr>
<tr>
<td>KTH</td>
<td>Royal Institute of Technology (Kungliga tekniska högskolan)</td>
</tr>
<tr>
<td>NIFU STEP</td>
<td>Norwegian Institute for Studies of Research and Education (Norsk institutt for studier av forskning og utdanning)/Studies in Innovation, Research and Education</td>
</tr>
<tr>
<td>MISTRA</td>
<td>Foundation for Strategic Environmental Research (Stiftelsen för miljöstrategisk forskning)</td>
</tr>
<tr>
<td>RJ</td>
<td>Bank of Sweden Tercentenary Fund (Riksbankens jubileumsfond)</td>
</tr>
<tr>
<td>SAREC</td>
<td>Department for Research Cooperation (Sida)</td>
</tr>
<tr>
<td>Sida</td>
<td>Swedish International Development Cooperation Agency</td>
</tr>
<tr>
<td>SIMI</td>
<td>Scandinavian International Management Institute</td>
</tr>
<tr>
<td>SISTER</td>
<td>Swedish Institute for Studies in Education and Research</td>
</tr>
<tr>
<td>SPIDER</td>
<td>Swedish Programme for ICT in Developing Regions</td>
</tr>
<tr>
<td>SSF</td>
<td>Swedish Foundation for Strategic Research (Stiftelsen för strategisk forskning)</td>
</tr>
<tr>
<td>STINT</td>
<td>Swedish Foundation for International Cooperation in Research and Higher Education (Stiftelsen för internationalisering an högre utbildning och forskning)</td>
</tr>
<tr>
<td>VINNOVA</td>
<td>Swedish Governmental Agency for Innovation Systems</td>
</tr>
</tbody>
</table>
ADMINISTRATION 2007

In 1999 a number of academies and foundations that finance research in Sweden set up an association whose aim was to carry out and promote studies of research and education and to encourage debate in this area. This association is the Swedish Institute for Studies in Education and Research, SISTER.

Public authorities, organizations and companies which can be expected to promote the association’s aims are entitled to apply for membership. Membership is conferred by the Board of SISTER upon written application. The annual meeting, at which every member has a vote, determines the annual fee and elects the members of the Board.

In 2007, almost 20 authoritative evaluations and scientific articles were published in SISTER’s various publications series. The main focus has included studies on how companies and the academic world cooperate, the development of research and innovation policy, and issues concerning the changed conditions for a research career. Additionally, the Institute played a part in a range of evaluations of different research programmes and policy instruments. During 2007, work continued on seeing through a number of large-scale projects which will be completed during 2008. In this context we can mention the Institute’s major cooperation project with Chalmers University of Technology and the Research Policy Institute in Lund on the changes in the situation of the universities and the conditions in which they work in a more and more competitive environment; an examination of the situation of the humanities in Sweden; and a major evaluation of the effects of state investment in seed-financing on companies and employment. The Institute took part in a range of national and international scientific conferences, and Göran Melin was appointed associate professor at Stockholm University. The Institute also ran three seminars. In late 2007 a cooperation agreement was signed with the Institute for Research Information and Quality Assurance (Institut für Forschungsinformation und Qualitätssicherung) in Bonn, to include the development of joint projects, shared seminars and some exchanges of staff.

FINANCIAL POSITION

In 2007, core grants from the founders amounted to 2.6 million SEK. Annual fees from the 14 members amounted to 0.7 million SEK. Additionally, the Institute financed its work through project funds and other external contributions. In 2007, total costs (excluding depreciation and items written off) amounted to approximately 9.7 million SEK. New projects are being financed by, among others, the Swedish Governmental Agency for Innovative Systems, the Royal Swedish Academy of Engineering Sciences, the Stockholm Institute of Education, the Swedish Foundation for Strategic Research, the Bank of Sweden Tercentenary Fund, the Swedish Foundation for International Cooperation in Research and Higher Education, the Royal Academy of Letters, History and Antiquities, the Royal Institute of Technology, and the Swedish International Development Cooperation Agency. The core grants from the founders and the annual fees from the members accounted for approximately 30 percent of the income reported for 2007.

Funds received are broken down into different periods over the span of time in which they are to be spent. The reason for this is that some of research grants SISTER receives span several years, and some are for work done by groups of researchers in collaboration. In this context one project in particular should be mentioned – the Knowledge Environments of Tomorrow project. Funds for these partners in cooperation are deposited in a special clearing account on the Institute’s balance sheet.
STAFF
At end-2007 the Institute had 14 members of staff – the Managing Director, Enrico Deiaco; five postdoctoral researchers; six research assistants, two of whom are also postgraduate students at the Royal Institute of Technology; one financial manager; and one programme and communications assistant. The total numbers of staff at end-2005 and end-2006 were 12. They have scientific expertise in different disciplines such as history, the sociology of knowledge, political economy, industrial organization and economic history. The Institute’s wider circle also includes researchers and PhD students who are employed elsewhere, mainly by universities and colleges of higher education.

THE ADMINISTRATIVE OFFICE
The administrative office consists of the management, accounting and other administrative functions. The office also handles communications, seminar and conference arrangements, and the publication of reports and booklets, as well as network building and contacts.
PROPOSED TREATMENT OF THE RESULTS

The Board and the Managing Director propose that the profit of 385,714 SEK for 2007 be carried forward.

On the results and the Institute’s general financial position, see the income and expenditure statements and balance sheet which follow, with the accompanying notes.

SUMMARY FOR THE SIX YEARS 2002–2007

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit/loss from operations (in SEK 000)</td>
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<td>117</td>
<td>−62</td>
<td>45</td>
<td>−1 346</td>
<td>−521</td>
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<tr>
<td>Turnover (in SEK 000)</td>
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<td>10 723</td>
<td>10 523</td>
<td>9 282</td>
<td>11 589</td>
<td>10 575</td>
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<td>Turnover (in SEK 000) divided by number of employers</td>
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<td>1 031</td>
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<td>10</td>
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## INCOME STATEMENT

<table>
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<tr>
<th>Operating income</th>
<th>Note</th>
<th>31 Dec. 2007</th>
<th>31 Dec. 2006</th>
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<tbody>
<tr>
<td>Membership income</td>
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<td>700</td>
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<td>Operating subsidies and grants</td>
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<td>Other operating income</td>
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<td></td>
<td></td>
<td><strong>10,367</strong></td>
<td><strong>10,723</strong></td>
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<tr>
<td>Operating costs</td>
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<td>Other external costs</td>
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<td>Personnel costs</td>
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<td>Depreciation of tangible fixed assets</td>
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<td></td>
<td></td>
<td><strong>-9,885</strong></td>
<td><strong>-10,606</strong></td>
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<tr>
<td>Operating profit/loss</td>
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<td>482</td>
<td>117</td>
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<td>Profits from financial investments</td>
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<tr>
<td>Interest income</td>
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<td>Interest expense</td>
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<td>Profit/loss from financial items</td>
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<td><strong>124</strong></td>
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<td>Profit/loss before tax</td>
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<tr>
<td>Tax on profit for the year</td>
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<tr>
<td>Profit/loss for the year</td>
<td></td>
<td>386</td>
<td>112</td>
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### BALANCE SHEET

<table>
<thead>
<tr>
<th></th>
<th>Note</th>
<th>31 Dec. 2007</th>
<th>31 Dec. 2006</th>
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<tbody>
<tr>
<td><strong>ASSETS</strong></td>
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<tr>
<td><strong>Fixed assets</strong></td>
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<tr>
<td><em>Tangible fixed assets</em></td>
<td>3</td>
<td>258</td>
<td>368</td>
</tr>
<tr>
<td>Equipment, furniture and fittings</td>
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<tr>
<td><strong>Total fixed assets</strong></td>
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<td>368</td>
<td></td>
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<tr>
<td><strong>Current assets</strong></td>
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<tr>
<td><em>Current receivables</em></td>
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<tr>
<td>Accounts receivable</td>
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<td>272</td>
<td>369</td>
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<tr>
<td>Other receivables</td>
<td>4</td>
<td>359</td>
<td>184</td>
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<tr>
<td>Prepaid expenses and accrued income</td>
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<td>265</td>
<td>208</td>
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<tr>
<td><strong>Total current assets</strong></td>
<td>896</td>
<td>761</td>
<td></td>
</tr>
<tr>
<td><em>Cash and bank balances</em></td>
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<td>2,424</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>2,619</td>
<td>3,553</td>
<td></td>
</tr>
</tbody>
</table>
## EQUITY AND LIABILITIES

### Equity

*Non-restricted equity* 5

<table>
<thead>
<tr>
<th></th>
<th>2023</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit/loss brought forward</td>
<td>286</td>
<td>174</td>
</tr>
<tr>
<td>Profit/loss for the year</td>
<td>386</td>
<td>112</td>
</tr>
<tr>
<td><strong>Total equity</strong></td>
<td>672</td>
<td>286</td>
</tr>
</tbody>
</table>

### Current liabilities

<table>
<thead>
<tr>
<th></th>
<th>2023</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advance payments from customers</td>
<td>685</td>
<td>959</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>72</td>
<td>96</td>
</tr>
<tr>
<td>Current tax liabilities</td>
<td>144</td>
<td>12</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>264</td>
<td>293</td>
</tr>
<tr>
<td>Accrued expenses and deferred income</td>
<td>782</td>
<td>1,907</td>
</tr>
<tr>
<td><strong>Total current liabilities</strong></td>
<td>1,947</td>
<td>3,267</td>
</tr>
</tbody>
</table>

### TOTAL EQUITY AND LIABILITIES

<table>
<thead>
<tr>
<th></th>
<th>2023</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total equity</strong></td>
<td>672</td>
<td>286</td>
</tr>
<tr>
<td><strong>Total current liabilities</strong></td>
<td>1,947</td>
<td>3,267</td>
</tr>
<tr>
<td><strong>TOTAL EQUITY AND LIABILITIES</strong></td>
<td>2,619</td>
<td>3,553</td>
</tr>
</tbody>
</table>

### MEMORANDUM ITEMS

<table>
<thead>
<tr>
<th></th>
<th>2023</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pledged assets</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Contingent liabilities</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
ACCOUNTING AND VALUATION PRINCIPLES

General information
The annual report has been prepared in accordance with the Swedish Annual Accounts Act and the general guidelines of the Swedish Accounting Standards Board for smaller companies.

Income
Income is entered in the accounts as the actual amounts received or that will be received.
Revenue recognition for monetary contributions as expenses arise.

Tangible fixed assets
Tangible fixed assets are entered in the accounts at their acquisition value less accumulated depreciation and possible write-down.
Depreciation is carried out on a straight-line basis on the depreciable amount (acquisition value less the estimated residual value) over the useful life of the assets, as follows:

Equipment, furniture and fittings—3–5 years.

Receivables
Receivables are entered in the accounts at the lowest of the nominal value and the amount that is expected to be received.

Pending work
The Net of Received Compensations/Benefits and Expenses spent, will be accounted for as Pending work.
### Notes

#### Note 1. Personnel costs, remuneration and fees

*Average number of employees*

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Women</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

|          | 11   | 11   |

#### Salaries and other remuneration

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing Director</td>
<td>984</td>
<td>960</td>
</tr>
<tr>
<td>Other employees</td>
<td>3,574</td>
<td>4,291</td>
</tr>
</tbody>
</table>

|                                | 4,558 | 5,251 |

#### Social security costs

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension costs, Managing Director</td>
<td>344</td>
<td>353</td>
</tr>
<tr>
<td>Pension costs, other employees</td>
<td>358</td>
<td>427</td>
</tr>
<tr>
<td>Statutory and contractual social fees</td>
<td>1,479</td>
<td>1,822</td>
</tr>
</tbody>
</table>

|                                | 2,181 | 2,602 |

Total amount of sick days

|          | 4%    | 5%    |

No fees were paid to the members of the Board

Three months notice for Termination of Employment on Own Account for Managing Directors and six months upon Notice of Termination given by the Association. Should Dismissal from Employment be effected by the Association, Severance Payment equal to six months’ salary shall be payable in addition to Termination Pay.

#### Gender distribution in the management:

<table>
<thead>
<tr>
<th>Number of men/women on the Board</th>
<th>31 Dec. 2007</th>
<th>31 Dec. 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Men</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

#### Fees to auditors

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ernst &amp; Young AB audit assignments</td>
<td>63</td>
<td>62</td>
</tr>
<tr>
<td>Other assignments</td>
<td>22</td>
<td>41</td>
</tr>
</tbody>
</table>

|                                | 85    | 103   |
### Note 2. Depreciation

<table>
<thead>
<tr>
<th>Depreciation</th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment, furniture and fittings</td>
<td>144</td>
<td>185</td>
</tr>
</tbody>
</table>

**Total** | 144 | 185 |

### Note 3. Tangible fixed assets

<table>
<thead>
<tr>
<th>31 Dec. 2007</th>
<th>31 Dec. 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment, furniture and fittings</td>
<td></td>
</tr>
<tr>
<td>Opening accumulated acquisition value</td>
<td>2,541</td>
</tr>
<tr>
<td>Acquisitions</td>
<td>34</td>
</tr>
<tr>
<td>Sales/disposals</td>
<td>-346</td>
</tr>
<tr>
<td><strong>Closing accumulated acquisition value</strong></td>
<td>2,229</td>
</tr>
<tr>
<td>Opening accumulated depreciation</td>
<td>-2,173</td>
</tr>
<tr>
<td>Sales/disposals</td>
<td>346</td>
</tr>
<tr>
<td>Depreciation for the year</td>
<td>-144</td>
</tr>
<tr>
<td><strong>Closing accumulated depreciation</strong></td>
<td>-1,971</td>
</tr>
<tr>
<td><strong>Book value</strong></td>
<td>258</td>
</tr>
</tbody>
</table>

### Note 4. Other receivables

<table>
<thead>
<tr>
<th>31 Dec. 2007</th>
<th>31 Dec. 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current tax receivable</td>
<td>329</td>
</tr>
<tr>
<td>Other</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total other receivables</strong></td>
<td>359</td>
</tr>
</tbody>
</table>

### Note 5. Equity, 2007

<table>
<thead>
<tr>
<th>Retained earnings</th>
<th>Profit for the year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount at beginning of year</td>
<td>174</td>
<td>112</td>
</tr>
<tr>
<td>Transfer of previous year’s profit</td>
<td>112</td>
<td>-112</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>112</td>
<td>386</td>
</tr>
</tbody>
</table>

**Amount at year-end** | 286 | 386 | 672 |
STAFF

SISTER is a research and analysis institute that recruits researchers and analysts with well-established research expertise and an interest in policy-related issues. We also recruit analysts and assistants with a high level of professional competence and an interest in research, education and innovation.

The individuals listed below were employed in 2007 at the Institute in Stockholm. The academic qualifications are also indicated for SISTER employees.

Managing Director  
*Enrico Deiaco*, M. A., Economics, Stockholm and Göteborg Universities

Financial Manager and Assistant to the Managing Director  
*Inger Lindbäck*

Communication Manager  
*Anna Hallén*, B.A., Social Science, Stockholm University

Researchers  
*Karla Anaya de Carlsson*, B. A., Sociology, Stockholm University  
*Anders Broström*, M. Sc. Engineering, Royal Institute of Technology (KTH) and Linköping University  
*Anki Dellnäs*, Ph D., History of Ideas, University of Gothenburg  
*Olle Edqvist*, Ph. D., Physics, Royal Institute of Technology (KTH)  
*Lars Geschwind*, Ph.D., History, Uppsala University  
*Ana Gren*, Ph D., Industrial Business, Royal Institute of Technology KTH  
*Andreas Johnson*, Ph D., Economics, Jönköping International Business School  
*Maria Johansson*, M. SSc., Comparative International Education, Stockholm University  
*Julia Lindkvist*, M. A., Art History, Stockholm University  
*Karin Larsson*, M. A., Political Science, Linköping University  
*Göran Melin*, Ph. D., Associate Professor, Sociology, Umeå University  
*Fredrik Scheffer*, B. A., Sociology, Stockholm University  
*Peter Schilling*, Ph. D., History of Economics, Umeå University  
*Åsa Smedberg*, B. A., Litterature/Religion, Stockholm and Umeå Universities

Associate Researchers  
*Mats Benner*, Ph. D., Head of Research Policy Institute, Lund University  
*Hans Lööf*, Ph. D., Economics, Royal Institute of Technology (KTH)  
*Olof Hallonsten*, Ph. D., student, Research Policy Institute, Lund University  
*Mattias Johansson*, Ph. D., Technology Management and Economics, RIDE, Chalmers  
*Peder Karlsson*, Ph. D., Sociology, Umeå University  
*Lillemor Kim*, Ph. D., Pedagogy, Uppsala University  
*Mats Magnusson*, Ph. D., Innovation Engineering and Management, RIDE, Chalmers  
*Maureen McKelvey*, Professor, Ph. D., Innovation Economics, RIDE, Chalmers  
*Göran Reitberger*, Adjoint Professor, Royal Institute of Technology (KTH)  
*Sverker Sörlin*, Professor, Ph. D., History of Ideas, Umeå University
FUNDING FOR SISTER IN 2007 PROVIDED BY:

Association of Swedish Engineering Industries
Bank of Sweden Tercentenary Foundation
Center of Excellence for Science and Innovation Studies
Ministry of Education
Innovationsbron AB
NIFU/STEP, Studies in Innovation, Research and Education
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Swedish Foundation for Strategic Research
Swedish International Development Cooperation Agency
Swedish Municipalities and County Councils
Swedish Research Council for Environment, Agricultural
The Foundation for Strategic Environmental Research
The Knowledge Foundation
The Swedish Program for ICT in Developing Regions
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Akademiska Hus
www.akademiskahus.se

Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning
www.formas.se

Royal Swedish Academy of Engineering Sciences
www.iva.se

Royal Swedish Academy of Agriculture and Forestry
www.ksla.se

Royal Swedish Academy of Sciences
www.kva.se

Royal Swedish Academy of Letters, History and Antiquities
www.vitterhetsakad.se

Swedish Municipalities and County Councils
www.skl.se

Bank of Sweden Tercentenary Foundation
www.rj.se

Swedish Foundation for International Cooperation in Research and Higher Education
www.stint.se

The Knowledge Foundation
www.kks.se

Foundation for Strategic Environmental Research
www.mistra-research.se

Foundation for Strategic Research
www.stratresearch.se

Swedish Association of University Teachers
www.sulf.se

Vårdal Foundation
www.vardal.se

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Dan Brändström, Chairman and former Executive Director of the Bank of Sweden Tercentenary Foundation

Göran Blomqvist, Executive Director of the Bank of Sweden Tercentenary Foundation

Madeleine Caesar, Executive Director of the Knowledge Foundation

Måns Lönnroth, former Executive Director of the Foundation for Strategic Environmental Research

Thomas Malmer, Head of Programme, The Royal Academy of Engineering Sciences (IVA)

Lars Rask, Executive Director of the Foundation for Strategic Research

Christina Rogestam, Senior consultant and former President of Akademiska Hus

Roger Svensson, Executive Director of the Swedish Foundation of International in Research and Higher Education (STINT)

Christina Ullenius, Vice president of the European University Association, Professor at Karlstad University
WHAT IS SISTER?

SISTER is an acronym for Swedish Institute for Studies in Education and Research.

In May 1999 a number of academies and research-funding foundations in Sweden established the Association for Studies in Research and Education for the purpose of conducting and promoting studies in research and education and to foster debate in this area. These activities are being carried out by the Institute for Studies in Education and Research, SISTER.

The Institute for Studies in Research and Education was launched on 1 January 2000. Its creation can be seen as a response to a need that had been discussed for some time for independent analysis and studies on the state of Swedish education and R&D systems. Initially the Institute was established for a period of five years, but this has been extended for an additional three years. The Institute is independent of political interests and its activities are funded by core grants from the Association, research-financing funds, research councils and foundations etc. as well as through commissioned research assignments.

The Institute’s work focuses on studies of research, education and innovation processes throughout society, i.e. covering the business community and industry as well as various types of organisations and the public sector. The Institute works with self-initiated research and analysis, commissioned studies and outward-oriented activities.

The Institute’s purpose is to study education, research and innovation processes in a comparative international perspective and to foster debate in this area. The Institute’s self-initiated research is characterised by high scientific quality and relevance to higher education and R&D systems. A central objective of the Institute is to create an overview and a cohesive source of information on the rapidly growing R&D sector.

Government agencies, organisations and companies that can be expected to support and advance the Association’s objectives can become members of the Association. Membership is granted by the Association’s Board of Directors following a review of a written application. At the Association’s annual meetings, where each member has one vote, decisions are taken on annual fees and members of the Association’s Board of Directors are elected.
**Spirographs**

*a few words about the publication’s images and illustrator*

Martin Ljungqvist is a young artist with a degree from the University College of Arts, Crafts and design (Konstfack) in Stockholm. As an artist Martin Ljungqvist works with many different genres and media; from pure graphics to happenings and works that resemble social experiments. A large audience witnessed his work for the first time at the art show Liljevalchs vårsalong 2004 where he exhibited a series of length of wallpaper with precise but irregular patterns on drafting film. The work was entitled Nebulae. The decorative pattern consisted of drawings made with a spirograph with a scale of 1:1.

The Spirograph was originally invented as a popular science tool to attract young people to the mathematics of graphs. In Ljungqvist’s hand and works, the designs bring to mind many different things: scientific nuclear physics diagrams, DNA, chromosomes, spiral galaxies and the religious Mandorla symbol. An encounter that can set a whole world rocking. Transferring the language of science – weather in popularised form or not – into the language of art has unexpected consequences and leads to multiple interpretations. What is fascinating about these images is the tension that occurs between the precise abstractions of science and the sensuous capacity of art, between calculated order and the whims of fate. Another way to approach ljungqvist’s Spirograph drawing is to see them fragmented inner workings of a clock. Spirals, springs and cogs have broken away and then regrouped in unexpected constellations. They dance defiantly, playfully and rhythmically before our eyes.

Unforseen alliances, new combinations of knowledge and art and the meeting of popula and high culture can sometimes generate innovations and creative solutions. Martin Ljungqvist’s art work show that this is not just an interesting opportunity, but also something wonderfully exciting and beautiful.