



SWEDISH FOUNDATION *for*
STRATEGIC RESEARCH

Annual Report

2023

Distribution of Grants

**“About Science” podcasts
and Films in 2023**

News and Events in 2023

**Funding Calls and
Decisions 2023**

Message from the CEO

**Message from the Chair
of the Asset Management
Committee**

Annual Accounts 2023

Contents

Message from the CEO
Message from the Chair
News and Events in 2023
January
February
March
April
May
June

July
August
September
October
November
December
**Funding Calls and
Decisions 2023**
Distribution of Grants

**“About Science” podcasts
and Films in 2023**
Annual Accounts 2023
**Message from the Chair of the
Asset Management Committee**
SSF’s Secretariat
SSF’s Governing Board
About SSF



Message from the CEO

– Collaboration is the key to greater impact

SSF is developing its portfolio of strategic programmes. The adoption of Multidisciplinary Research Centres (MRCs) is making a difference. Each grant is worth SEK 60 million. The aim is to strengthen academia together with industry and society. At the same time, MRCs have put Sweden in a leading position within their respective field of research. Highly topical areas for MRCs are:

- Semiconductor Systems Design - project approved,
- Strategic Metals and Minerals – grant announced and decided,
- Medical Primary Prevention – grant announced,
- Complex Cellular Systems – grant announced,
- 6G Satellite Communications – grant announced.

In 2023, the Foundation disbursed SEK 544 million to nearly 300 ongoing research projects at universities and other research organisations, many of them in collaboration with industry. SEK 277 million have been allocated for new calls for proposals.

Collaboration is the key to greater impact. A prominent example is the setup for our MRC on Strategic Metals and

Minerals, which was identified in discussion with Mistra, the Swedish Foundation for Strategic Environmental Research. Simultaneously, Mistra launched their own systems-oriented initiative, matching ours. The right initiatives can provide great leverage, even when funding is limited. This applies to SSF's support for EU applications. The outcome is encouraging.

SSF participates in conversations on research for sustainable development, most recently through input into the government's forthcoming Research and Innovation Bill. In it, I argue for real academic freedom through institutionally autonomous institutions for higher education. In addition, SSF is encouraging

mobility among researchers and the utilization of discoveries.

Our gaze is firmly forward. Forthcoming years will see the establishment of, for instance, further MRCs, bilateral projects with South Korea, and an extension of the Foundation's support to Ukrainian researchers in Sweden.

And, in 2024, SSF celebrates its 30th anniversary!

Lars Hultman

PHOTO: JENNY HALLENGREN



Lars Hultman, CEO of SSF.

“Strategic research is conducted on the edges of science.”



Message from the Chair

Humanity is facing a challenging transformation in climate, health, and digitalisation. The transformation is both complex and demanding, which in turn means that the solutions required for a sustainable society must be both complex and powerful. As societies and industries come together more distinctly around policies and the development of transformational solutions, the appetite for new knowledge in many areas is making itself known. For a small country like Sweden, it is especially important to include a clear strategic element in the compass for our future direction in order to best

PHOTO: JENNY HALLENGREN



“In WIPO’s index of the world’s most innovative countries, Sweden was ranked number two.”

Magnus Berggren, Linköping University, Chair of SSF’s Governing Board.

navigate the stormy seas of research and innovation for sustainability.

When in September last year the UN’s World Intellectual Property Organisation (WIPO) published its index of the world’s most innovative countries, Sweden was ranked number two in the world, after Switzerland and ahead of the US. This is an important testament to and great encouragement for our successful research and innovation efforts, and it illustrates that these lead to practical solutions.

The main task of the Swedish Foundation for Strategic Research is to fund projects within basic and applied research where the most difficult challenges are turned into hypotheses that lead to excellent research results. With an ever-present strategic element the research applicants are awarded a great deal of freedom to formulate their methods and approaches. It has been a great joy and inspiration to participate in funding decisions for a great number of highly excellent research projects in 2023, while at the same time following previously approved projects which in several cases have resulted in innovations and applications of great significance for a sustainable society.

Confidently and with great enthusiasm, we now look ahead to 2024; the year when the Foundation celebrates 30 years.

Magnus Berggren



January 2023

SSF takes part in the Cybernode* cyber security conference where some 30 projects, funded by Vinova, MSB, and SSF, show off their work and results.

Research projects in receipt of funding through the **Lise Meitner Grants for Israeli-Swedish Research Collaboration**, a joint venture between SSF and MOST – Israel’s Ministry of Innovation, Science and Technology, are celebrated at a reception at the Embassy of Israel.

SSF participates in the EU’s Materials Expert Group with the aim of developing a strategic agenda for the Advanced Materials 2030 Initiative – AMI2030.

*A national cyber security initiative headed by RISE.



Lise Meitner grant holders were celebrated via a link between Israel’s ambassador’s residence in Stockholm and Sweden’s ambassador’s residence in Tel Aviv.



February 2023

PHOTO: ISTOCK



MRC MetMin focuses on innovation-critical/rare metals and minerals, essential for a green/smart transition.

For the tenth successive year, SSF I Industry PhD Students! SEK 30 million are allocated to research and postgraduate education for 12 industrial doctoral students.

SSF announces grants of SEK 60 million for the establishment of a research centre specialised in securing the supply of strategic raw materials, **MRC MetMin**. The research will focus on the extraction and enrichment of metals.

SSF participates in “AIMday Materials” at Uppsala University, where SSF’s initiatives in Materials Science are presented.

SSF’s CEO Lars Hultman meets Minister Wu at the National Science and Technology Council (NSTC) in Taipei to discuss the Foundation’s research collaboration with Taiwan.



March 2023

MRC MedPrev aims to prevent diseases and to establish the prerequisites for a healthier life for people of all ages.

PHOTO: ISTOCK



The World Bank and Croatian Ministry officials visit SSF to exchange experiences on the collaboration between basic and needs-driven research, and on how to achieve greater impact and utilization of research results.

SSF announces grants of SEK 60 million for the creation of a multidisciplinary research centre for medical primary prevention, **MRC MedPrev**. The aim is to actively work for good health in order to prevent suffering and diseases. The centre is the third one in SSF's investment in Multidisciplinary Research Centres.



April 2023

SSF awards eight grants totalling SEK 3.8 million aimed at assisting applications for grants within the **Horisont Europa (HEU) programme**, the EU's framework programme for research and innovation.

A new opportunity to apply for **Strategic Mobility!**

SSF approves grants of SEK 60 million for the research project **Chalmers-Lund Centre for Advanced Semiconductor Systems Design, ClassIC**, SSF's first MRC – Multidisciplinary Research Centre.

“Solar cells – how the technology of today and tomorrow works” kicks off the new season of SSF's “About Science” podcasts!

SSF is investing SEK 10 million in a new funding call: **SSF Industrial Postdoc**.



“What technical solar cell solutions are available today, and are there new, better materials on the horizon?” Listen to the podcast “About Science”!



May 2023

PHOTO: SOFIE PEHRSSON



Two further "About Science" podcasts are available to listen to during May. One of them about the Health of the Baltic Sea!

SSF's Programme Director and CEO takes part in the "Science Policy Forum" organised by the Korea-Nordics Science & Technology Cooperation Centre (KNTEC) in Solna. In connection with this, plans are made for a future bilateral research programme between SSF and the Korean National Research Foundation (NRF).

- Two new "About Science" podcasts are launched:
- **"Electronics instead of Medicine?"** With soft electronics injected into the body, researchers want to cure cancer or help people with Parkinson's, epilepsy or perhaps ADHD.
 - **"How to save the Baltic Sea?"** Is anything being done to improve the situation, and is it working? Can new research tell us what should be done?



June 2023

The Swedish Entrepreneurship Forum holds a seminar, presenting three research articles based

PHOTO: SOFIE PEHRSSON



Follow the participants of Future Research Leaders 7 on their study tour of Israel!

on SSF data. One of the conclusions is that SSF's funding calls have systemic impact even for unsuccessful grant applicants.

Future Research Leaders (FFL-7) make a study tour of Israel. The 7-days-trip enabled the 18 people of the Swedish contingent to visit large parts of the Holy Land and, above all, some of the country's most prominent universities. Watch the film from the trip here!

Two new "About Science" podcasts: "Why have we not invested in Swedish rare earth metals until now?" and "Protect your garden with animals, fungi, and bacteria".



July 2023

This year's edition of "Future Research" is published, with interviews among others with the Minister for Research Mats Persson on "More cutting edge will sharpen research", with Ericsson's Head of Research Magnus Frodigh on "Major technology shifts await in the wake of 6G", and with the Director General of the Swedish National Space Agency Anna Rathsman on "Swedish space research is vital for climate research". In addition, an editorial by and an interview with SSF's CEO Lars Hultman, plus reports on lots of exciting research on, for example: "Centre for Swedish Semiconductor Design", "Deficiencies in the brain's waste disposal system might cause dementia" and "New tool being developed for rapid antibiotic diagnostics".

SSF meets Taiwan's National Kaohsiung University of Science and Technology (NKUST) during their visit to Stockholm.

Read the Future Research magazine!



August 2023

The launch of films about “Future Research Leaders 7”. A total of 14 films are released between the autumn of 2023 and the spring of 2024. The first, featuring Henrik Boije at Uppsala University, is headlined “**Zebrafish help researchers understand the nervous system**”: Knowledge about how the human nervous system is formed makes it easier to understand the origins of diseases such as MS and ALS.

For the second time, SSF is announcing the programme **Adjunct Professor**, this time with the addition of **Adjunct Senior Lecturer**. The funding call is aimed at highly qualified individuals employed in Swedish industry, healthcare, or government



PHOTO: FILMFINITY

Films with Future Research Leaders 7 are launched – first up is Henrik Boije at Uppsala University.

agencies, who are seeking employment at a Swedish institution of higher education.



September 2023

Release of two more films, summarising research conducted by “Future Research Leaders”:

By modelling risk factors for the increased likelihood of developing autism, ADHD, or dyslexia, Kristiina Tammimies and researchers at KI, are able to at an earlier stage identify children who need extra support.

The hacking of control systems has major consequences for society. André Teixeira and his research team at Uppsala University are studying how to make control systems more resilient against cyber-attacks.

SSF’s Scientific Secretary Gergana Hamberg takes part in the workshop “Digital Transformation of Advanced Materials Research & Innovation”.

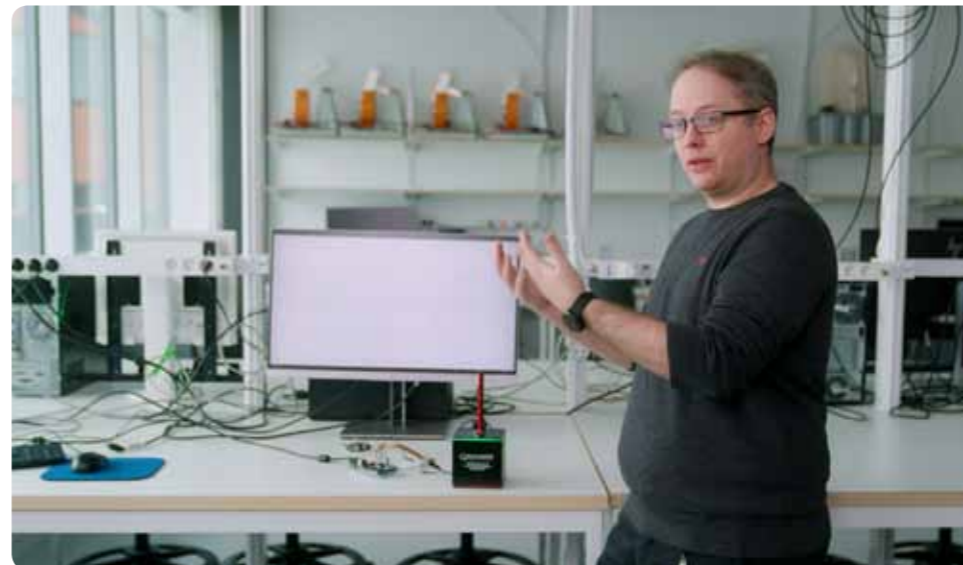


PHOTO: MARKUS JORDÖ

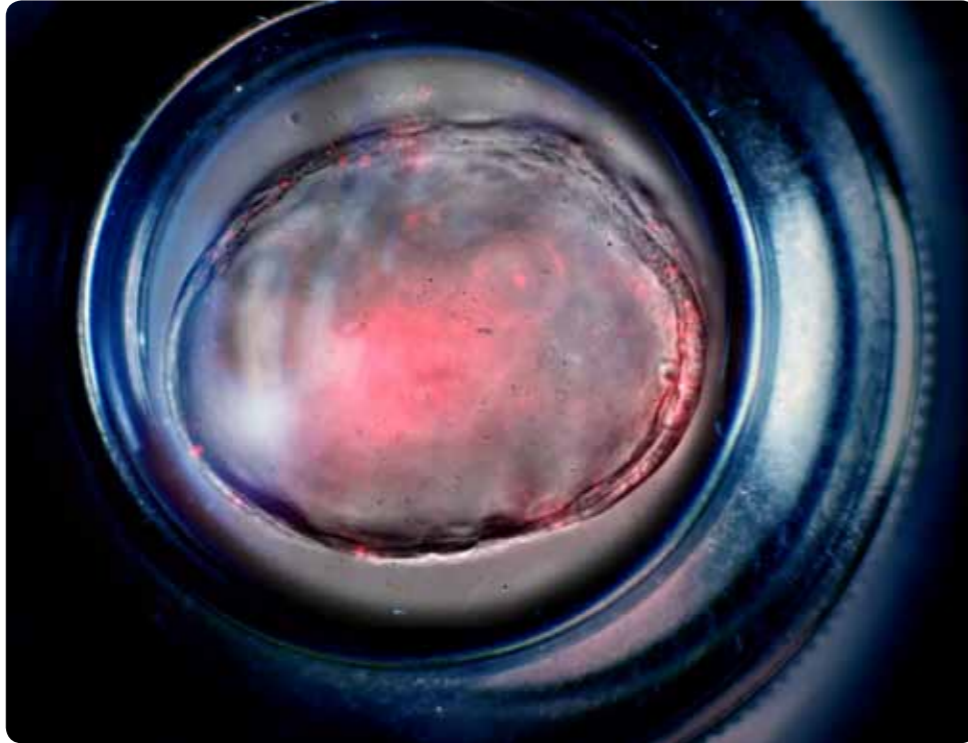
André Teixeira at Uppsala University is studying how to counter cyber-attacks in industry.

Lars Hultman, SSF’s CEO, joins in the Science and Technology in Society (STS) Forum in Kyoto.



October 2023

PHOTO: MARKUS JORDÓ



Complex Cellular Systems, here represented by organoids, arranged to form a miniature intestine.

SSF is celebrating 30 years in 2024. The jubilee is celebrated with the announcement of **SSF Sabbatical 2024**, inviting researchers to the opportunity of a sabbatical year abroad.

Complex Cellular Systems, such as so-called organoids, are becoming an increasingly important research topic. **SEK 60 million are being allocated for the establishment of a multidisciplinary research centre for complex cellular systems.**

The project “**Forskningscentrum för Smart Exploration**” receives a grant of SEK 60 million in the funding call for **MRC MetMin**. The research is led by Uppsala University and will focus on the extraction and enrichment of metals and minerals.

This year’s Industry PhD students are selected and introduced.



November 2023

At a joint funding event for the University of Skövde, Halmstad University, Jönköping University, the University of Borås, and University West, SSF and our initiatives are presented. A similar presentation is also made during “Grants Day” at Uppsala University.

Through the funding call **SSF: EU Horizon Europe application support**, the Foundation offers SEK 10 million to help researchers apply for EU grants as project coordinators for “HEU Pillar 2”.

A new film is released, this time about **6G with the Future Research Leader Emil Björnsson at KTH**.

Once again, it is possible to apply for Postdoc in Japan, a collaboration with JSPS (Japan Society for the Promotion of Science).



PHOTO: PIXABAY

New support for applications to Horizon Europe (HEU)!



December 2023

PHOTO: ISTOCK



6G Satellite Communications – research on energy-efficient mobile communications and space-based satellite communications.

SSF allocates SEK 60 million to a multidisciplinary research centre “MRC – 6G Satellite Communications (6GSAT)”.

The 2023 **Strategic Mobility Grants** are selected. Nine projects share SEK 10 million. The aim of the programme is to increase the transfer of knowledge and cross-fertilisation between different sectors, and to give researchers the opportunity to develop in new environments.

SSF Industry Postdoc 2023 is introduced. The subjects of projects range from improved technology for acoustic capture of biological particles to the development of new Terahertz receivers for measuring global warming.



Funding Calls and Decisions 2023

Funding Calls

February	EU Application Support (EU23)
	Industry PhD students 2023 (ID23)
April	Industry-oriented Postdoc (IPD23)
	Strategic Mobility (SM23)
August	Adjunct Professor 2023 (APR23)
October	MRC, Complex Cellular Systems, C-Cell (CCS23)
	Sabbatical 2023 (SAB23)
December	MRC, 6G Satellite Communication, 6GSAT (CSG23)

Decisions

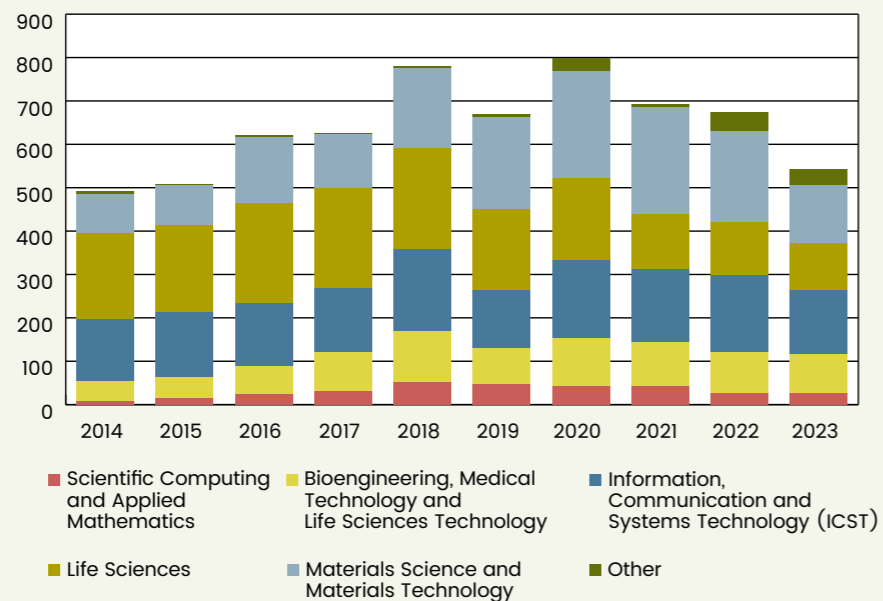
April	MRC SeSyDe (CSS22)
June	Research Institute PhD students (FID22)
August	Help for Researchers (IA23)
October	Flyttfara, Mikael Sigvardsson (IB23)
	Industry PhD students 2023 (IDB23)
	MRC MetMin (CMM22)
December	Strategic Mobility (SM23)
	Industry-oriented Postdoc (IPD23)



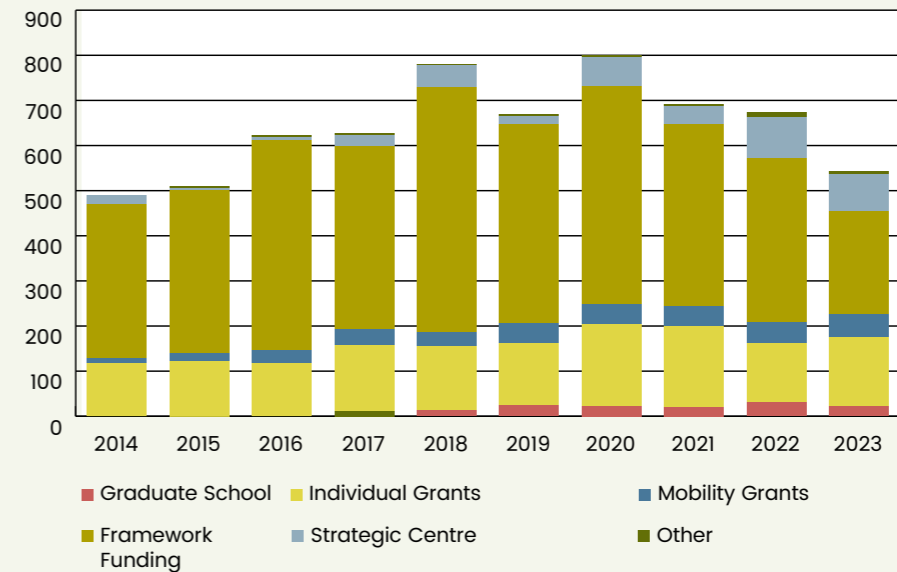
Distribution of Grants

The graphs show grants by SSF during the past ten years according to type of grant, research area and university.

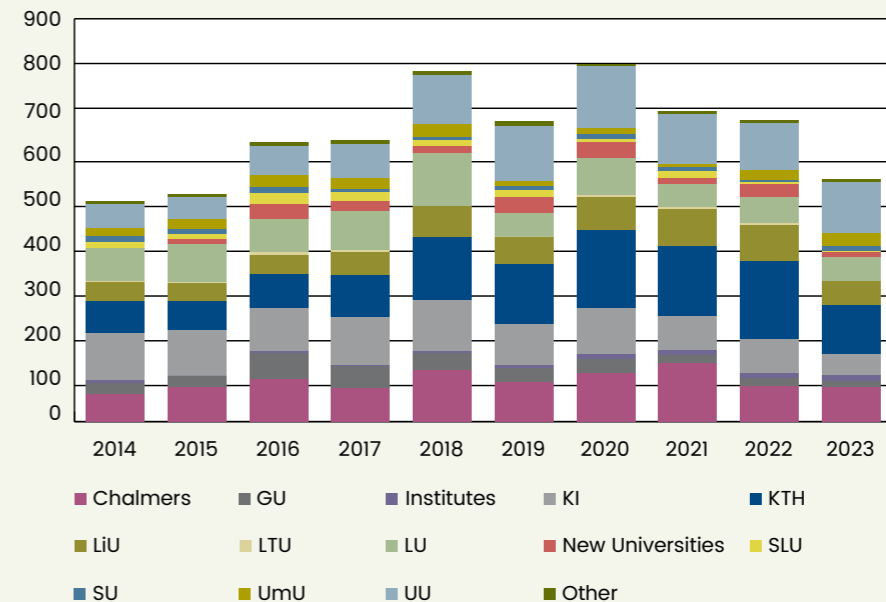
Payments per Research Area (MSEK)



Payments per Grant type (MSEK)



Payments per Administrative Organisation (MSEK)



“About Science” podcasts and Films

2023 was the third season of SSF’s “About Science” podcasts. In addition, 14 films were produced with Future Research Leaders 7, some released in the autumn of 2023 and the rest in the spring of 2024. Watch and listen to some of them here!



Zebrafish help scientists understand the nervous system Henrik Bojie at Uppsala University uses zebrafish to study causes for diseases such as MS and ALS.



Protect your garden with animals, fungi, and bacteria How do you get rid of pests in the garden? Well, by adding beneficial animals – about biological pesticides and the research on them?



Why haven't we looked into in Swedish rare earth metals until now? Is new technology the reason? Or is it that the size and grade of LKAB’s deposit in Kiruna makes it profitable?



How to save the Baltic Sea? What is going on with the Baltic Sea? Is anything being done to improve the situation, and is it working? Can new research tell us what should be done?

Watch more films about SSF’s projects here!
Listen to more of SSF’s “About Science” podcasts here!



Annual Accounts 2023



SSF's capital is made up of funds transferred to the Foundation in 1994 following a decision by the Swedish Government. By careful management of these funds over the years, the Foundation had funds totalling SEK 11.9 billion on 31 December 2023, after the distribution of research grants worth SEK 17.7 billion during the period 1994–2023.

[Read the full Annual Accounts \(in Swedish\) here.](#)



Message from the Chair of the Asset Management Committee

Following the overheating of economies in 2022

characterised by rampant inflation and falling asset prices, 2023 became a year of normalisation. A year in which we have learned that zero-interest rates cannot last forever, that capital thus yet again comes at a cost, that leveraged balance sheets can become challenging, and that world economies sometimes must be directed from central banks. Also, a pattern of higher interest rates characterised 2023, although towards the end of the year the markets started to sense a light at the end of the tunnel. Stock markets rose sharply in the final months of the year, ending 2023 on the plus side despite all the challenges.

However, one sector that continued to face major challenges was real estate. The most interest sensitive companies have experienced extreme strains, and in many cases have been forced to realise large losses. Even for well-managed corporations the challenges have been great. All businesses have seen property valuations fall, while interest costs have risen and access to capital has fallen. This has also affected the Foundation's property portfolio, where our main focus has been on our large ownership in Stenvalvet. What we can be pleased about is the focus on community service properties, which is the segment that has fared best, and that Stenvalvet has a low loan-to-value ratio and has been able to



withstand the challenges relatively well. However, we have of course been affected as the value of our holdings has fallen. At the same time, we have continued to benefit from our well-diversified portfolio, where equities, fixed income investments, and our other unlisted assets have performed well. Summing up the year, we note that our portfolio has increased by 1.6 percent, and that we have continued to add value to our business despite an uncertain world.

Ann Grevelius



SSF's Secretariat



Lars Hultman, Chief Executive Officer, CEO
tel: 08-505 816 77, 073-358 16 77
email: lars.hultman@strategiska.se



Joakim Amorim, Programme Manager
tel: 08-505 816 65, 073-358 16 65
email: joakim.amorim@strategiska.se



Jonas Bjarne, Scientific Secretary, ICT, Mathematics
tel: 08-505 81 673, 0733-58 16 73
email: jonas.bjarne@strategiska.se



Johan Nilsson, Scientific Secretary, Life Sciences,
Research Institute PhD students
tel: 08-505 816 74, 073-358 16 74
email: johan.nilsson@strategiska.se



Sara Marakbi Häkkinen, Economist
tel: 08-505 816 62, 073-358 17 46
email: sara.marakbi@strategiska.se



Magnus Jacobsson, Portfolio Manager
tel: 08-505 816 75, 073-358 16 75
email: magnus.jacobsson@strategiska.se



Mattias Lundberg, Scientific Secretary,
Industry PhD students, IRC, Production
tel: 08-505 816 78, 073-358 16 78
email: mattias.lundberg@strategiska.se



Sofie Pehrsson, Communications Manager
and Science Editor
tel: 08-505 816 67, 073-358 16 67
email: sofie.pehrsson@strategiska.se



Birgitta Talu, Reception and Office Administrator
tel: 08-505 816 61 073-358 12 42
email: birgitta.talu@strategiska.se



Gergana Hamberg, Scientific Secretary,
Materials Sciences, FFL, Leadership Programme
tel: 073-358 16 76
email: gergana.hamberg@strategiska.se



Vivianne Liliansdotter, Registrar, Secretary to the CEO
tel: 08-505 816 64, 073-358 16 64
email: vivianne.liliansdotter@strategiska.se



Lotta Thörn, Financial Manager
08-505 816 69; 073-358 16 69
email: lotta.thorn@strategiska.se



SSF's Governing Board



PHOTO: JENNY HALLENGREN

Front row from left: Annika Sanfridson, Cantragia AB; Magnus Berggren, Linköping University, Chair; Gösta Lemne, Ericsson. Middle row: Katarina Gårdfeldt, Swedish Polar Research Secretariat; Björn Ottersten, KTH Royal Institute of Technology. Back row from left: Erik Valtonen, Consultant; Kerstin Johannesson, Gothenburg University; Claes Wohlin, Blekinge Institute of Technology.

Missing: Charlotte Brogren, Alimak Group AB; Pernilla Wittung Stafshede, Chalmers University of Technology.

For information regarding board memberships and other interests of the members of the Board, the CEO, and the members of the Asset Management Committee, please contact SSF's Secretariat.



About SSF

- Supports research and research training within engineering, medicine, and natural sciences in order to strengthen Sweden's future competitiveness.
- Works to reform Swedish research towards excellence and impact.
- Creates bridges between basic research and demand-driven research where results will be utilised.
- Continuously finances 300 projects at universities – many of them in collaboration with industry and research institutes.
- Carries out targeted research initiatives that are often interdisciplinary and multidisciplinary.
- Awards career grants to outstanding research leaders, with emphasis on talented young people.
- Encourages researchers' mobility around the world, as well as between academia, institutes, industry, healthcare, and other sectors in society.
- Contributes to the creation of research instruments, methods, and techniques, as well as competence for research infrastructure.
- Annually distributes grants worth several hundred million SEK.



SWEDISH FOUNDATION *for*
STRATEGIC RESEARCH

Box 70483, 107 26 Stockholm | Visiting address: Kungsbron 1, G7
Tel: 08-505 816 00 | Email: info@strategiska.se | www.strategiska.se

