

The Swedish Foundation for Strategic Research announces grants for Strategic Research Centres

The Swedish Foundation for Strategic Research (SSF) intends to finance a number of Strategic Research Centres within a total budget framework of 600 million SEK at the most in grants from the Foundation, and hereby invites pre-proposals from those interested. The Foundation's support to individual centres will take the form of five-year grants of up to 6–12 million SEK per year.

The objectives

The first paragraph of the Foundation's Statutes states its objective as follows:

'The objective of the Foundation [...] shall be to support scientific, technical and medical research. The Foundation shall promote the development of important research environments of the highest international standards with a view to enhancing Sweden's long-term competitiveness'.

The aim of this initiative is to establish a number of Strategic Research Centres which will:

- carry out creative research of the highest scientific quality, with international impact, and when the approach to a problem demands more focused and coordinated efforts than can be achieved within the framework of smaller projects
- produce results which, can be of use* through the research carried out and the training of researchers in cooperation with industry and society,
- contribute to renewal by creating or developing strong, preferably multidisciplinary, research settings which are well integrated into the university structure and are able to attract both researchers who are world leaders, as well as national and international funding and investments.

* The Foundation's policy documents define use as consisting of:

- the power of internationally high-class research settings to attract unique competence and international investment into the country
- people with graduate education who through their broadened and enhanced research training are attractive for employment, primarily in industry and society but also in the universities and colleges
- research of which the results can be the basis for the development of existing enterprises or the founding of new ones
- improved quality of life through new job opportunities, better working conditions and better health
- research that is a focus for international cooperation, through which knowledge that is of interest to Swedish industry can be gathered.'

What is a Strategic Research Centre?

The Foundation's vision of a developed Strategic Research Centre is shown in the box.

A Strategic Research Centre is a focused research setting of the highest scientific quality and of strategic significance for the development of Swedish industry and society. It will work in one or more fields of science, technology and medicine.

A Strategic Research Centre handles larger and more complex issues with different time perspectives with the participation of complementary scientific and technical competence. It can include both fundamental research and research that is more directed towards eventual application.

A Strategic Research Centre is of adequate size and is based on several research groups in a university or a research institute. It is geographically, and preferably locally, coherent but can have nodes elsewhere if this is needed to achieve the objectives set. It has a clear and effective management, strong leadership, and well-developed contacts, mechanisms and routines to ensure that its work can be put to use.

As will be apparent from this vision, a Strategic Research Centre should develop a plan for how the results of the research are to be put to use afterwards. The Board of the Foundation has decided that a part of the grants will be reserved for this. The provision of financing from industry and society will be an advantage but is not a condition of granting. A Strategic Research Centre can include graduate training where this is considered appropriate.

Applications

Applications will proceed in two stages. In Step 1, a pre-proposal will be submitted with a summary description of the vision of the centre and its strategic importance, as well as the potential participating research groups and how the centre will be run. After a selection process a number of applicants will be chosen to proceed to Step 2 and submit a full proposal (see the appendix). The latter will include a plan for the development of the centre.

Who can apply

Applications will be submitted by one main applicant, who must be a prominent researcher attached to a university. He or she as the research leader must be prepared to take responsibility for the centre for the whole period of the agreement. The recipient of the grant should be a university.

The assessment process

The Board of the Foundation has set up a working committee on Strategic Research Centres consisting of

Thomas Johannesson, professor (Chair)
Bertil Andersson, professor
Agneta Bladh, rector
Jan-Olof Eklundh, professor
Sture Forsén, professor
Harry Frank, director
Ingvar Lindgren, professor
Magnus Madfors, director
Leena Peltonen, professor
Berndt Sjöberg, professor

To help it in its work, the committee has three panels which will work in parallel in the assessment process—one panel, *the research panel*, which will consider scientific quality, one panel, *the universities panel*, which will consider the applications from the perspective of research priorities, and one panel, *the panel for industry and society*, which will consider their relevance for the development of industry and society (see the appendix).

In Step 1, an overall assessment will be made in which the three panels will assess the submitted pre-proposals from different, mainly strategic, starting points.

In Step 2 a detailed analysis will be made which includes an international scientific review followed by a ranking of all those proposals which, being weighed together applying all the criteria, are considered to be possible candidates for support.

The committee will then present a proposal indicating priorities to the Executive Director and the Board of the Foundation for decision. Twenty per cent of the total budget will be held in reserve to be distributed in the form of supplementary grants after a mid-term evaluation during the third year of operation.

Only a limited number of centres will be financed, and it must be stressed that the Foundation neither aims nor is able to provide support to all subject fields. The quality of the applications and the Foundation's scientific and strategic judgement will decide which research fields will receive support. In order to use its own funds and those of other financing bodies in the most effective possible way, the Foundation will make its own assessments but will be working together with the Swedish Research Council, Formas, and Vinnova, who are announcing grants for strong research environments in parallel.

How applications will be assessed

In the overall assessment, the criteria given below will be applied. In Step 1, special weight will be given to the strategic aspects, and the scientific assessment will be developed more fully in Step 2.

- Added value
 - The value which the proposed centre can add as compared with support to individual projects
- The scientific quality of the research plan
 - Its scientific quality in an international perspective
 - Balance between fundamental research and application oriented research
 - Its scientific level, creativity and originality within the research field
 - Multidisciplinary research element related to the objectives and the proposed methods of coordinating such collaboration
 - The size of the funding sought in relation to the proposed objectives
- The scientific level of the participating researchers
 - The scientific level of the proposed research leader
 - The scientific level of the participating project leaders
- Strategic relevance
 - The strategic relevance for Sweden of the proposed field of research (see the paragraph on objectives)
 - The relevance of the proposal to the particular research field
 - The relevance of the proposal for the profiling of the universities concerned
- Putting the results to use in industry and society
 - Planning for exploitation, locally, nationally and internationally
 - Ongoing or planned cooperation with industry and society
 - Proposed ways of strengthening the links between the research and its applications
 - Available routines for handling intellectual property rights
- Education and the provision of competence
 - Efforts to improve graduate education
 - Efforts to make the recruitment of researchers easier
 - Ways of promoting a gender balance in research careers
- Management/leadership
 - The experience and management ability of the proposed research leader

Appendix 1. A description of the review process

Step 1

Pre-proposals received will be reviewed by the panels described below from different, mainly strategic, starting points.

The *research panel* will consider the pre-proposals from a research strategy point of view. It will assess how far the research programme meets the scientific level required; whether its vision and objectives are adequate, creative and realistic; whether the problems it addresses are appropriate for handling by setting up a centre; whether the composition of the research groups is coherent; and whether the research leaders have the desired scientific weight and leadership abilities. It will also assess how the proposed centre will be able to strengthen Sweden's international research cooperation, also including the EU Framework Programme for research and development.

The *universities panel* will consider the pre-proposals from the point of view of infrastructure, both nationally and locally. It will conduct a dialogue with universities on their requirements, priorities and commitments in relation to particular applications for funding, and form a view of the part of each application that concerns research training and the university's support for the commercialization of the research results. This panel may also make site visits in order to gain a sound understanding of the local situation, questions of infrastructure, and the exploitation of the research results.

The *panel for industry and society* will consider the pre-proposals from the perspective of current and future industry and society as regards the creation of competence and the exploitation and commercialization of the research results. Proposals will be analysed in relation to industry and society both nationally and locally. Current and planned collaboration with industry will be assessed, as will the mechanisms proposed for exploiting the results of the research in an optimal way.

The assessments of the three panels will be put together by the committee, after which approximately 35 of the applicants will be invited to proceed to the stage of a full proposals. Planning grants of 100,000 SEK will be offered to all those who submit a full application in Step 2.

Step 2

The full proposals will be reviewed scientifically as well as strategically. The full proposal should contain a more detailed description of the centre's research programme and its goals, and a description of the larger whole of which the programme is part. International assessors will carry out the scientific review at this stage, and the committee and its three panels will carry out the strategic review, which will include a 'hearing' with those applicants who are ranked highest in the assessment. The committee will finally weigh the remaining proposals against each other and rank them on the basis of the international scientific reviews, the national strategic assessment, and their impressions from the hearings. A proposal indicating priorities will then be passed to the Executive Director of the Foundation, who will propose to the Board which centres should be set up.

The Foundation will make a comprehensive judgement as to how the Foundation's total resources can best be used.

Instructions for application

The pre-proposals should be written in English (in 12 pt print) and include:

- **Application form** (1 page):

Use the attached form or download it from the website of the Foundation, www.stratresearch.se, where further information about the Foundation can be found.

- **Enclosure 1: Summary** (maximum 1 page) of the most important parts of the pre-proposal. This summary should be comprehensible for those who are not experts in the specific research area of the centre.

- **Enclosure 2: Vision and mission statement** (maximum 0.5 pages). A short description of the vision and what will be done and how, which resources will be utilised, who are the recipients and why the suggested constellation is best suited for the task.

- **Enclosure 3: The scientific basis and future impact of the centre** (maximum 3 pages) including the research problem(s) to be approached and an outline of the research plan.

- **Enclosure 4: The strategic relevance of the centre** (maximum 3 pages), the research proposed put in a broader context in order to provide a basis for assessment of its strategic relevance. Of interest here are both the strategic relevance of the research area for Sweden and the relevance of this proposal for the research area and for the universities. What, and how, can the proposed research contribute to societal development, industry and science in a wider and more long-term perspective? Describe the support in handling intellectual property rights. Add a plan how to utilise the research results.

- **Enclosure 5: Organization of the centre** (maximum 2 pages): the proposed location, composition and budget of the centre; the specific types of scientific competence needed; the approximate number of other employees (including students and postdoctoral students); the plan for additional recruitment(s); available technology platforms and other resources; the need for investment; and the need and justification for possible nodes at other locations. The efforts planned for the centre to improve graduate training, to facilitate collaboration and the recruitment of scientists, and to promote a reasonable gender balance should also be described here. The composition of the current research groups involved in the applications should be given. The competence and leadership/management experience of the main applicant should be clarified and an explanation given as to why the main applicant has been chosen to be the proposed director of the centre.

- **Enclosure 6: Curricula vitae and lists of publications and patents** for the applicants

I. Curricula vitae (main applicant maximum 2 pages, co-applicants maximum 1 page) preferably in the following format:

- | | | | |
|--|---|---------|-------------------------|
| A. Professional preparation | Undergraduate university | Area(s) | Degree and year |
| | Graduate university(ies)/department(s) | Area(s) | Degree and year |
| | Postdoc university(ies)/department(s) | Area(s) | Including dates (years) |
| B. Appointments | A list of the individuals' academic/professional appointments, beginning with the current appointment | | |
| C. Commissions of trust | | | |
| D. Networks in academia and industry: | most important international and national cooperation partners (with names and contact details) | | |
| E. Entrepreneurial achievements | | | |
| F. Theses of graduate students examined under the main supervision of the applicant, including names and present positions of these students | | | |
| G. Other relevant qualifications | Prizes, awards, invited lectures, etc. | | |

Include records of the previous research achievements of the applicants (maximum 0.5 page each).

II. List of publications and patents (including full titles and website addresses if available) in the following format:

- A. Original publications
- B. Reviews
- C. Conference papers
- D. Others (patents, demonstrators, copyrights, software)

Main applicant: covering the last five years. Mark the top ten publications most closely related to this proposal with an asterisk.

Co-applicants: maximum one page with the top five publications most closely related to this proposal marked.

Do not enclose any reprints.

- **Enclosure 7:** Information about similar proposals submitted to other financing organizations.

Submission of pre-proposals

The pre-proposals in **one original and 30 complete copies** should be received by the Foundation **by 7 September 2004, at 4 PM**. The copies are to be printed on punched paper and stapled, *without* any special covers or binders, etc. Pre-proposals **must not** be sent by telefax.

The application form and enclosures should also be submitted electronically as one attachment in Word, RTF or PDF format to SFC@stratresearch.se. The subject line of the e-mail message, as well as the heading of the attachment, should read, in the following order: **Main applicant's family name, given name, SFC2004**.

No additional material submitted after 7 September 2004 will be considered. Please also note that according to Swedish law all material submitted to SSF is normally public. Avoid submitting information about any details that could prevent patenting.

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