

INSTRUCTIONS TO CALL 2020-R

Open call to researchers in Sweden to apply for funding for Space Research, including Earth Observation Research

These Instructions should be read carefully by all applicants. You are also expected to read the following two general documents:

- **SNSA Research Calls**
- **Technical Guide 2020** (for non-Prisma Research Applications)

<p style="text-align: center;">2020-R Research Funding Open call to researchers in Sweden to apply for funding for Space Research, including Earth Observation Research</p> <p style="text-align: center;">Deadlines¹ Digital version: 2020 May 13, 17:00² Paper version: 2020 May 13, 17:00³</p>

¹Two submissions are mandatory, both a digital submission and a paper version with original signatures. See Technical Guidelines for details.

²Maximum size of attached PDF document: 5 megabyte

³Swedish postal stamp of the preceding working day is sufficient.

NEWS

Please note the following changes compared to last year:

- We refer to Call 2020-N (released in February 2020) for all projects concerning participation in international research space missions (including projects with a duration of 1-3 years).
- Technology Research for space applications is this year planned to be addressed by a dedicated call, 2020-T, to be issued no later than June 2020.
- The current call is based on the classical SNSA system with forms in Excel and manual assembly of PDF documents for e-mail submission. However, please note that successful applicants who are granted funding must be prepared to take some simple actions to incorporate the grant in the Prisma system. Subsequent administration of grants, starting from January 2021, is planned to be made with Prisma.

PURPOSE OF THE CALL

The application shall concern, in a concrete way, scientific analysis of measurements from:

- space-borne platforms like satellites (including ISS and satellites within the Copernicus Programme), planetary probes, planetary rovers, etc.;
- sounding rockets and high-altitude balloons;
- ESA-funded ground-based and air-based science projects.

This call is limited to projects that will give meaningful scientific results within a research grant of maximum 3 years and to requests for dedicated support to PhD positions (4 years).

Educational activities are not covered by the current call.

Technology Research for space applications is this year planned to be addressed by a dedicated call, 2020-T, to be issued no later than June 2020. Proposals where Technology Research is the main theme are therefore excluded from this Call 2020-R. However, projects that meet the requirement of scientific analysis of measurements in accordance with one of the three bullets above (within the 3-year grant period), may include Technology Research as a preparatory component in the early stages of a 3-year project.

We refer to Call 2020-N (released in February 2020) for projects concerning hardware and software contributions and operation of international research space missions (including projects with a duration of 1-3 years). For more complete specifications, see Call 2020-N.

Please note that the current call (2020-R) is the right place to seek support to analysis of data from international projects also in the case where the applicants have been instrumental in preparing for the realisation of a space mission (e.g. via an N proposal of a previous year). More specifically, such previous efforts is addressed by one of the evaluation criteria. Thus, it is an advantage for applicants who have made efforts in a consortium of scientists, have developed hardware for the payload or have contributed software of importance for the success of a space mission. SNSA also promotes utilization of space infrastructure to which Sweden has contributed, such as national missions, Copernicus, ESA Science missions, sounding rockets, ISS, etc.

Applicants who are uncertain where a project proposal belongs are advised to contact SNSA staff.

CONTENTS OF A RESEARCH APPLICATION

Application forms

A proposal must contain the following set of forms:

- Form A (Overview)
- Form B (Administrative information, with signatures on paper version)
- Form C (Abstracts)
- Form D (Other sources of funding)
- Form E (Staff overview)
- Form F1-F4 (Sought amounts)

Enclosures

A set of PDF Cover Sheets is provided for each type of enclosure that can be appended to the proposal:

1. Description of the Research Programme (*mandatory*)
2. Specification of Costs (*mandatory*) and Letters of Support
3. Progress Report
4. Curricula Vitae (*mandatory*)
5. Specification of Ph.D. student position

The cover sheet must be the first page of each enclosed enclosure. These sheets specify additional rules for the contents of each enclosure.

Letters of support

Letters of support may only be appended to Enclosure 2 and only in accordance with the rules on its cover sheet.

MODULES

A proposal may be divided into 1-3 modules. Form B and Forms F1-F4 are prepared for this, and if you use more than one module then please make sure that this is reflected in a transparent way in the corresponding sub-sectioning of Enclosure 1. There are two main reasons for using more than one module, as explained in the following two sections.

Collaboration between research groups

If the proposed work is to be conducted in collaboration between research groups at two or three departments/institutes in Sweden, it is possible to include the total research programme as a single research application. The forms are prepared for up to three modules, which can be carried out at different places. In this case, the principal applicant submits a full digital and paper proposal. For each secondary location the local project leader (co-applicant) submits a paper version of Forms A and B of the same proposal with original signatures of the local project leader and local head of department/institute.

Semi-independent blocks

A project to be carried out at a single site may also be divided into two or three modules, if it naturally divides into semi-independent blocks. These may correspond to different levels of ambition, different phases of a project, or activities of different type. Such modules must be presented in Enclosure 1 as components of a single structured proposal. If the parts are more independent and different in character, then submission of more than one proposal is favoured. As a general rule, if you believe all modules ought to be evaluated by the same set of international experts, then include them in a single proposal. If the parts should be assessed independently and peer reviewed by different sets of experts, then submit separate applications instead.

DETAILED INSTRUCTIONS ON INFORMATION REQUESTED ON FORMS

Abstract

Each project is to have an abstract of 100-250 words giving a brief and clear description of the proposed work. The abstract must be included on Form C, but may also be repeated as part of Enclosure 1, if appropriate. A summary in Swedish must also be included, preferably in a popular science style. For successful proposals, SNSA may have summaries in both languages published on the web as a description of the granted project.

Suggestions on evaluators

To broaden the basis of SNSA's scientific peer review process, applications should generally include names and contact information of three international experts on the subject of the proposal (Form B). The three experts should be free from conflict of interest with respect to the applicants and their research groups. The three experts must not all have the same gender. Please, do not repeat the same set of proposed names every year.

Other funding sources

It is mandatory to include on Form D information on all grants awarded to the applicant and his/her research group, as well as all funding requests submitted by the applicant/research group to other funding agencies (informative titles of projects required). It is also mandatory to specify in the application forms the degree and the manner in which the activities of the applicant will be supported by the home institution and/or other funding agencies.

Additional support required

If there are foreseen additional costs of the project in addition to the sought amounts, then tick the appropriate box on Form A. In Enclosure 2, describe all additional support required to accomplish the proposed project, e.g. management support, industrial work, and cost items that cannot be estimated at this point in time.

SUPPORT TO SALARIES

A significant portion of the research funding that SNSA allocates is used for salaries. SNSA is in no case an employer or responsible for the staff of the research projects. Instead, SNSA grants can be used by the administration entity (“bidragsförvaltande organ”), e.g. a university, for salaries and associated social fees for its staff. The employment rules of the administration entity apply to the involved staff. SNSA grants may also be used to hire external consultants with appropriate expertise for the research project.

General staff costs

You may include any type of staff costs essential to the needs of the proposed research project, including secondment/”friköp”), Research Fellows, PostDocs, PhD students, Research Engineers, etc. All staff costs must be justified in Enclosure 2 (roles, amount of expected work, extent in time). In general, such staff costs will be judged by SNSA as cost items for the project. Any resulting grant contract will be set up to suit the research project, without regard to issues such as the length of staff positions (maximum 3 years) and what the employees do beyond the fraction of time supported by SNSA.

PhD Position (*Doktorandtjänst*)

SNSA promotes a healthy recruitment of new students to PhD fellowships, especially in academic environments that provides excellent education and training of the student and in research groups that have an excellent future research potential. If a PhD student would be a good resource in your proposed research project and if you feel the previous sentence applies to your research group, then you may consider applying for a dedicated support of a PhD position (4 years). This is done by submitting Enclosure 5 to your research proposal (in addition to filling in the normal data for the PhD student on Form E, Forms F1-F4, and Enclosure 2).

It is important that Enclosure 5 includes a clear and credible plan for the thesis work, including a detailed description of the anticipated research project, that makes it probable that the PhD student will finish his/her thesis within the scope of the project and within four years of full-time efforts. A PhD student salary grant is normally guaranteed for a maximum of 4 years (100% of full time can be sought), but the allocated funds may be used during 5 years, provided the receiving institution contributes 20% per year for five years. The Ph.D. student position shall normally be applied for as an open position and (for successful applications) be advertised at least nationally or in accordance to local university rules. The application must contain the CV of the proposed tutor, including specification of tutoring and teaching experience. If the application for a doctoral position concerns an already identified person, his/her CV shall also be appended and the principal applicant must give the reasons for the focussing on that person. Enclosure 5 shall describe the plan and milestones for the Ph.D.

studies, the research tasks under the responsibility of the Ph.D. student, and list the expected results and output of his or her research. In addition, the supervisors and their commitment shall be clearly described.

SNSA plans to award up to four new grants per year (depending on the economic situation) that are specifically tailored for PhD fellowships (“doktorandtjänster”). The exact number in a year will depend on budgetary constraints and the excellence of the proposals. In cases where SNSA does not grant a sought support of a PhD fellowship with a tailored PhD grant, SNSA may instead decide on a normal project grant of shorter duration which may include part of the sought PhD costs as general staff contribution to the proposed research project.

Specification of staff costs

In the following steps to apply for funding of staff, please be aware that some of the early steps have automatic numerical consequences on Forms F1-F4:

1. Specify the appropriate percentage(s) for indirect costs of staff on Form B.
2. Explain the basis for estimating future salaries in the box at the bottom of Form E (for example a yearly percentage increase).
3. Fill in the upper part of the table in Form E.
 - a. If employment of a new unspecified person is intended, then put “NN” as name and skip unknown items.
 - b. Specify the social fees (“arbetsgivar- och premieavgift”) prescribed at the administration entity (percentage).
 - c. Fill in monthly salaries for all relevant years (this is the only place in the forms where the unit is kr, as opposed to kkr)
4. On Forms F1-F4, fill in the number of months and the fraction of time to be spent on the research project for each person.
5. In Enclosure 2, specify clearly the role and responsibility of each person proposed to work on the project. It is important to justify the need for the proposed staff.
6. Enclose CV's to the extent required by the cover sheet of Enclosure 4.

External consultants

You may seek funding for hiring consultants. The reasons for this and the role of the consultant in the proposed project must be clearly specified in Enclosure 2. On Forms F1-F4, you can enter the associated costs either on the last row under “Staff costs” or further down under services, depending on the local rules for indirect costs.

CRITERIA FOR EVALUATION

The following criteria are considered by SNSA in the evaluation process (in no particular order, except the first bullet is most important):

- The scientific excellence and importance of the project, internationally, nationally and for society, including both pure science and applied science aspects.
- The project aim, goals, implementation and project plan.
- Strong research environment, competitiveness and international standing of the group.
- Motivation for and need of space experiments or observations in or from space.
- The degree to which the applicants have been instrumental in the realisation of a space mission to be utilized.
- The extent to which the project utilizes space infrastructure which Sweden has contributed to, such as national missions, Copernicus, ESA Science missions, sounding rockets, ISS, etc.
- The novelty of the project and its potential to renew, develop and promote future national and international research efforts in using space-based or high-altitude equipment.
- The scientific and technological prospects for the group to successfully execute the project.
- Realistic and well-motivated cost estimates.
- The potential of the project – whilst maintaining high scientific quality – to increase the number of women active in research.
- The extent to which the applicants have delivered mandatory reporting of previous projects funded by SNSA.

For dedicated PhD grants SNSA also assesses the suitability of the proposed PhD project and the supervision plan.

The final research programme of SNSA will be based on the above criteria, combined with boundary conditions such as budgetary constraints, strategic and policy considerations, gender aspects, and the long-term evolution of the research programme.

STAY INFORMED

In order to receive timely information from SNSA on funding decisions and calls, please register for our Newsletter for Researchers at:

<https://www.rymdstyrelsen.se/om-rymdstyrelsen/nyhetsbrev/>