

INSTRUCTIONS FOR APPLICANTS CALL 2020-N

Open call to researchers in Sweden to apply for funding and SNSA commitments for participation in international Space Science and Earth Observation space missions

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)

2020-N

Open call to researchers in Sweden to apply for funding and SNSA commitments for participation in international Space Science and Earth Observation space missions

Deadlines¹

Digital version: 2020 April 23, 24:00²

Paper version: 2020 May 7, 17:00³

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 megabytes

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

NEWS

1. The scope of this call has been broadened compared to N calls of previous years. There are no longer any time limitations to the projects, so also short-term (1-3 yr) work related to contributions to international research missions can be supported within this call.
2. More stringent requirements for support letters have been introduced.
3. Information on funding limitations are provided.
4. 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.

GENERAL

Phases of space projects and types of support

In order to facilitate successful involvement of Swedish researchers in international research missions in space, the Swedish National Space Agency (SNSA) have a portfolio of support types for the typical phases and activities of such involvement:

1. Early planning, formation of consortia of scientists.
2. Writing of mission and instrument proposals, early technology development, work in competition with other mission candidates.
3. Design and building of hardware, development of software, detailed planning in preparation of the operational phase.
4. Operation of software and instruments during the operational phase. Calibration and validation of space data. Archiving of scientific data.
5. Exploitation of science data from space for own research.

SNSA has a continuously open call for support to organisation of events and travel ("Stöd för arrangemang och resor"), which allows researchers to apply for support of activities under phase 1 above. In addition, please note the continuously open call "Rymdstyrelsens stöd inför framtida vetenskapliga rymdprojekt", which addresses support letters and other support during phase 2.

The N call described in this document allows researchers to apply for support for phases 2-4 above. A successful proposal may result in a long-term commitment from SNSA (more than 4 years). SNSA may also enter into agreements with international partners concerning delivery of essential hardware, software or other work that is essential for the realisation of the space mission. Before making such commitments, SNSA may also enter into negotiations with the host university/institute where the work is to be carried out.

For projects which already have long-term SNSA support, it is possible to use this N call to request support for increased levels of ambition and previously unforeseen activities.

SNSA does not normally make any commitments for the science data exploitation phase (5) in advance. Funding for the science exploitation will not be granted in response to this call. Such support may be sought from other funding agencies or in response to the annual R calls of SNSA.

Examples of previous support

The following types of long-term support have been funded by SNSA in the past:

- Ground-based calibration or validation of measurements by an instrument on a satellite, which are essential to meet the goals of the instrument.
- Development of software, algorithms, data handling procedures, or instrument simulation tools required for a specified international space mission.

- Design and construction by research groups of a scientific instrument, or parts thereof, for flight on a specified international space mission.
- Industrial work which contributes to a specified international space mission, and which supplements work by researchers in Sweden on the international project.

Research disciplines

This call is open to all research disciplines that can utilize data acquired on space-based platforms.

Funding limitations

In the current planning of the Research Programme of SNSA, the approximate amounts given below are available for new commitments for contributions to international space research missions (based on this call and N calls of future years). Thus, proposals that don't fit within these limitations are unlikely to be funded by SNSA. In addition, please note that cost increases within existing commitments may consume some of the available budget. In past years SNSA has granted more than one project within each N call. SNSA seeks to avoid allocating all the available budget for many years into the future. Thus, only part of the available budget beyond 2021 is planned to be allocated to the current call. For these reasons, it is very unwise for applicants to treat the table below as something to be completely used up.

2021	~1 Mkr
2022	~4 Mkr
2023–2025	~10 Mkr / year
2026–	>10 Mkr / year

Funding period

Fill in Forms F1-F4 for the number of years (maximum 4 years) for which reasonable detailed cost specifications can be made. Justify these costs and estimate the costs for all phases of the project in Enclosure 2 (may be longer than 4 years).

Letters of support

Please append the following letters and other information from third parties in **Enclosure 2**:

- It is mandatory to include a letter of support from the **host university/institute**. This should specify the support and facilities offered to the proposed project. It is an advantage if the letter also specifies support during the science data exploitation phase, which is beyond the normal commitment period of SNSA.
- Include letters of support or other relevant documentation that clearly shows the role of the applicant(s) in mission/instrument consortia and other bodies planning a space mission, the need for and the acceptance of the proposed Swedish contribution to the mission, and the plans of the international organization responsible for the space mission. In case of questions, please contact SNSA staff before submission.

Extended deadline

In cases where a planned international space mission is foreseen to undergo a significant evolution or decision step after the nominal deadline of this call, please contact SNSA with this information. SNSA may in such cases grant an extended deadline.

CONTENTS OF A RESEARCH APPLICATION

Application forms

A proposal must contain the following set of forms:

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

Enclosures

A cover sheet is provided for each of the following types of enclosures that can be appended to the proposal:

1. Description of the proposed contribution to an international space project (mandatory)
2. Specification of Costs (mandatory)
3. Progress Report (not required for new projects)
4. Curricula Vitae (mandatory)

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

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 than please make sure that this is reflected in a 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 can 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 of a more popular science type. 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.

Staff costs

In the following steps to seek 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

Most calls allow you to 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.

SNSA HANDLING OF SUBMITTED APPLICATIONS

Applications written in accordance with these instructions will be assessed by the SNSA Science Advisory Committee (SAC).

Criteria for evaluation

The following criteria are considered by SNSA in the evaluation process (in no particular order):

- Benefits to Swedish research (both among applicants and from a broader national perspective) of the proposed participation in the international project.
- Strong research environment, competitiveness and international standing of the applying researchers.
- Established relationships with the space agency or scientific consortium planning for the space mission, and the roles and responsibilities of the applicants within the project.
- Credibility of the implementation plan, including costs, schedule, work packages and risk assessment.
- The novelty of the project and its potential to renew, develop and promote future national and international research efforts.
- The potential of the project – whilst maintaining high scientific quality – to increase the number of women active in research.
- For running projects requesting additional commitments, the achievements made so far are considered.
- The extent to which the host university/institute supports the project.
- The extent to which the proposed project fits within the budgetary constraints of SNSA.