INSTRUCTIONS TO CALL 2020-T

Open call to researchers in Sweden to apply for funding for Technology Research for space applications

REVISION HISTORY

2020-06-04:   Original version
2020-06-23:   Added bullet in Appendix GEN/BUDGET/Total budget/Other costs;
              Layout changes

SCHEDULE

Release: The call will be released in the Prisma system in June 2020.

Deadline: Proposals must be submitted no later than **2020 October 6,** at **14:00**.

Decision: Grant decisions are expected before the end of the year 2020.

Please note that the Prisma system will automatically prevent registration of your proposal after the moment of deadline. We therefore **strongly advice** applicants to register proposals in good time before the deadline. In this way you get early feed-back from the system on missing information required for registration. The system also allows you to unregister, edit and re-register an application before the deadline. For more information, see:

NEWS

Please note the following changes compared to the past:

* Technology Research has been treated differently by SNSA in the past. Currently, we plan to have dedicated calls for Technology Research with a cadence of approximately three years (tbc).
* This is the first call of SNSA within the Prisma system. We hope for understanding that we are in a learning phase with the system. More information is provided in Appendix GEN.

PURPOSE OF THE CALL

The Swedish National Space Agency (SNSA, *Rymdstyrelsen*) intends to support Technology Research for space applications and invites proposals adhering to the following criteria:

- Applicants must make probable that excellent results within Technology Research can be achieved within a grant period of 1-4 years and result in publication in esteemed journals for Technology Research.

- The foreseen results should have important long-term applications in future space activities. It can involve technology for space craft, sounding rockets, high-altitude balloons, or ground-based equipment in support of space activities.

Proposals may also include requests for dedicated 4-year support to a doctoral student position (the bullets above must still be fulfilled). For more information, see Appendix DOC.

Applicants who are uncertain if their projects fit the criteria of this call are advised to contact SNSA staff.

ENCLOSURES

A set of enclosures in the form of PDF documents must be uploaded to the Prisma system for inclusion in the proposal. The minimum font size for bulk text in the enclosures is **12 p**. The required contents of these enclosures are described in the following sections. Each enclosures should have a heading corresponding to the **headings** of the sections below.

Project Description   (<u>mandatory</u> enclosure)
 Required contents:
- A general summary of the proposed research project (copy from the Prisma text field is allowed).
- Detailed description of the proposed research project. The programme must be described with sufficient background information to allow a peer with no prior knowledge of the work of the research group to make a good evaluation of the proposed project.
- Schedules, milestones and work packages must be given whenever applicable. The total amount of work must be broken down into work packages to a level of detail that allows an evaluation of the feasibility to complete the project on time and within budget.
- The staff situation and the responsibilities of individuals.
- Specify clearly the long-term benefits of the proposed project to space activities. This information may be supplemented with letters of support in a separate enclosure.

Plan for Doctoral Student Position   (optional enclosure)

You need to include this attachment only if you are seeking support for a dedicated grant for a doctoral student. For more information, see Appendix DOC.

Justification of Costs   (**mandatory** enclosure)

Required contents:

- A detailed specification of anticipated project costs for all years for which funding is sought. Give the justification for each item. Note that it is not sufficient to merely restate the information given in the Prisma budget tables.
- Specify additional resources at the disposal of the project. This could be in-kind support from the host organisation, salary costs covered by the host organisation or other grants, etc. Do **not** include these amounts in the tables of the Prisma form.

Exclude VAT in the sought amounts.

Publication List   (**mandatory** enclosure)

You may list a maximum of ten full references to scientific publications that show the experience of the project team in the subject of the proposal.

Letters of Information   (optional enclosure)

You may only include the following types of letters:

- If your project requires special laboratory resources or other services, then you may include a letter (e.g. from the university) stating what resources are made available to the project.
- You may include letters from end-users of your technology (industry, government agencies, researchers) which demonstrate the interest in application of your research for space activities.

CRITERIA FOR EVALUATION

Primary criteria used in the evaluation:
- The scientific excellence of the proposed Technology Research project.
- The long-term potential for application of the new technology in space activities.

Additional for dedicated doctoral student positions:
- The suitability of the proposed doctoral project and the supervision plan.

SNSA may also consider the following criteria in the evaluation process:
- The implementation and project plan.
- Strong research environment, competitiveness and international standing of the group.
- The novelty of the project and its potential to renew, develop and promote future research efforts.
- The scientific and technological prospects for the group to successfully execute the project.
- Realistic and well-motivated cost estimates.
- The extent to which the applicants have delivered mandatory reporting of previous projects funded by SNSA.

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.

QUESTIONS

For questions on this specific call, please contact Johan Köhler (08-40 90 77 93, johan.kohler@snsa.se). However, note that for technical questions on Prisma and general questions on SNSA calls, please see contact details at the end of Appendix GEN.

APPENDICES

- **DOC** – Dedicated support to doctoral student position
- **GEN** – General instructions

Appendix DOC

Dedicated Support to a Doctoral Student Position

This appendix contains specific rules for seeking dedicated support to a full-time doctoral student position for 4 years. Please note that if you merely want to include some part-time work by a doctoral student in your application, then you can ignore this appendix and treat the student as any other staff in the costs for your project team.

SNSA promotes a healthy recruitment of new students to doctoral positions, especially in academic environments that provides excellent education and training of the student in research groups with promising future research potential. If a doctoral 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 dedicated support of a doctoral student position (4 years). This is done as follows:

1. Tick the box "I apply for funding for a doctoral student" under the heading "Doctoral student".
2. Attach a PDF enclosure (see below).
3. Specify the costs associated to the doctoral position (see below). If the doctoral student request is part of a big project application, then it is appropriate to present the former costs in its own module in the cost enclosure.
4. Make sure the intended supervisor(s) sign the proposal and include their CV's (including tutoring and teaching experience).

Content of the doctoral student enclosure (attached PDF)

- Identify the supervisor(s) and describe their roles, qualifications, and commitments (in percentage of full time) to the supervision tasks.
- Outline a clear and credible plan for the thesis work. For the first two years, list milestones and the research tasks under the responsibility of the student. List the expected results and output of his or her research, at least concerning the first two years. It is important to make it probable that the student will finish his/her thesis and get the PhD or comparable degree within the scope of the project and within four years of full-time efforts.
- Put the thesis work expected from the student in perspective to the activities described in the general Project Description.

Costs

You may include the following costs for a maximum of **four years**:

- The expected salary of the student
- Social costs (*lönekostnadspåslag*) on the above

- Tutoring costs of the supervisor (salary, etc.)
- Other costs for the student, e.g. computer costs, a yearly conference, etc.
- Indirect costs on the above

In addition to the above, you may include project costs in accordance with the rules specific to the call you are answering.

Grants

Successful applicants will generally receive a dedicated doctoral student grant of four years. The grant rules usually allow the usage of the funding to be spread out during five years, provided the receiving institution contributes 0.2 FTE for this period. The doctoral student position shall normally be advertised at least nationally or in accordance to local university rules. The employment rules of the administrating organization apply to the position.

In cases where SNSA does not grant a dedicated doctoral student grant, SNSA may instead decide on a normal project grant of shorter duration which may include part of the sought costs for the student as general staff contribution to the proposed research project.

Appendix GEN

General Instructions

This appendix contains general rules and information concerning some calls within the Research Programme of the Swedish National Space Agency (SNSA, *Rymdstyrelsen*). It is appended to the specific instructions for calls to which it applies. In cases of conflicts between the specific rules of the instructions of a call and this document, then the specific rules have precedence over the general rules of this document.

In 2020 SNSA is migrating to the Prisma system for research administration. Please note that the nomenclature of this document has been adapted to fit Prisma and departs somewhat from the nomenclature used by SNSA for calls made prior to the adoption of Prisma.

APPLICATION PORTAL PRISMA

Applicants must have a **personal account** within the system Prisma. For more information, see: https://prisma.research.se/

A proposal is created on the above web site by adding required information in the application form. In addition, bulk information in the PDF format must be uploaded into the proposal. Please make sure to register the proposal in good time before the deadline applicable to the call.

Please note that the organization where you are employed (or intends to be employed) must have an **organization account** in Prisma and be accepted by SNSA. If this is not the case, please make sure your employer submits an application to SNSA at least two weeks before the deadline (this is also done on the web site above).

For support and information on Prisma, see: https://prismasupport.research.se/

LANGUAGE

The proposals can be written in Swedish or English. However, most members of SNSA advisory committees do not understand Swedish and most external expert reviewers are drawn from the international research community. Thus, SNSA may need to have proposals received in Swedish translated to English. Applicants are advised to carefully consider using **English** in the proposal in order to make sure that their intents are conveyed without a translational interface.

However, please note that many calls require a project title in both languages and that a popular science summary in Swedish may be required.

SPREAD OF INFORMATION

For successful applicants who are granted funding, SNSA plans to make the following information available on the web (SNSA web site and/or other web pages, such as SweCRIS):
- Funding organisation
- Project leader
- Affiliation
- Abstract (English) and popular summary (Swedish)
- Project duration
- Yearly funding level

WHO CAN APPLY?

The applicant is required to be, or be eligible to become, affiliated to a university or research establishment in Sweden where the project work is to be carried out.

Research contracts are issued only to researchers who have a doctoral degree. Applicants who do not have such a degree but expect to receive it shortly may nevertheless submit a research proposal. In this case SNSA must receive a copy of the doctoral certificate or a written confirmation from the head of department/institute that the principal applicant has applied for the PhD degree or comparable degree. For calls with a deadline in May, the confirmation must reach SNSA by October 1 (for other situations, please consult with SNSA staff). Lacking such confirmation, the application will not be further considered.

A research grant is normally contracted to a research leader who will remain younger than 68 years of age during the first calendar year of the grant. If the applicant will reach the Swedish LAS-limit during the proposed project duration, then the application should contain a plan for the future transfer of leadership of the project to a younger person. If a university department or institute wishes to receive funding for research leaders older than the above limits, then the case must be clearly stated, e.g. in a letter from the head of department included in the proposal.

SNSA can reject proposals whose applicants have outstanding reports from previous grants.

Other participants (*medverkande*)

Additional staff (maximum six) standing behind the proposal and intending to work on the proposed project may also sign the proposal. These persons must also have a Prisma account

and CV information from them will be included in the proposal. However, note that this process puts additional constraints in place within Prisma, so there are more things that can go wrong and prevent registration of the proposal before the deadline. Thus, plan in good time with signing participants.

In addition to the above, you may have any number of additional persons in your project team, without having them sign the proposal.

Participants from other universities

Both signing and non-signing participants in your team may be affiliated to other research establishment, both in Sweden and abroad. In case you want to have support from SNSA for costs within more than one organisation, then see the section "Budget" for more information.

Gender aspects

The number of female researchers using space-based platforms is still rather small in Sweden. SNSA therefore encourages the scientific community to contribute towards more women becoming willing and able to commit themselves to successful research projects. Without waiving quality requirements, SNSA will consider gender as one of several boundary conditions when evaluating applications within open calls.

Information in the CV

Imbedded in the Prisma system there are specific rules for what can be included in your CV for each individual call.

BUDGET

Under this heading in the Prisma forms you summarize the costs sought for the project from SNSA. Give costs in Swedish kronor. Distribute costs on the table headings as follows:

- **Salaries** (see special section below for more details)
  - Salaries
  - Social fees (*lönekostnadspåslag*)
- **Running Costs**
  - Instruments and equipment
  - Expendables
  - Computer costs, computing costs
  - Publication costs
  - External consultancy
  - Depreciation costs
  - Premises
- **Expenses - Travel**
  - Transportation and travel to project meetings

o   Conference travel to present results

- **Total Budget**
  o   All the above are added automatically
  o   Manually add indirect costs
  o   You may also add "other costs", not applied for (optional)

All costs must be specified and justified in the enclosure "Cost specification". More information on this enclosure may be provided in the specific instructions for the call you are responding to.

Modules

If you are proposing extensive activities that naturally divide into parts, then it is appropriate to divide the costs in the enclosure "Cost specification" into two or more modules. You can do this by specifying the costs as separate sections in the enclosure or by using a table with a column for costs in each module. Make sure the modules are reflected in a transparent way in the Project Description, e.g. through sub-sectioning.

Examples when modules are appropriate:
- Proposals which can be funded in a meaningful way with different levels of ambition.
- Proposals that naturally fall into two or more discrete project phases.
- Proposals with work to be carries out at two or more universities, etc.

Costs at multiple organisations

If the project team has affiliations at different universities and research institutes and you are requesting support from SNSA for costs at more than one site, then this can be handled in one of the following ways:
- Include minor costs at another organisation under "Runnings costs".
- Make a separate module for each site, as described above.

In both cases, it is the responsibility of the project leader to arrange agreements required between participating organisations for transfer of funding between them.

For invited calls concerning SNSA commitments for space missions, special roles may apply.

Salaries and social fees

SNSA grants can be used by the administrating organisation for salaries and associated social fees for its staff. The employment rules of the administration entity apply. SNSA grants may also be used to hire external consultants with appropriate expertise for the research project.

In the budget of your proposal, you may include any type of staff costs essential to the needs of the proposed project, including secondment/"friköp"), Research Fellows, PostDocs, PhD students, Research Engineers, etc.

Clearly motivate each staff cost.

OTHER FUNDING

Under the heading "Other funding" on the forms, it is mandatory to include information on all awarded grants and submitted proposals that overlap with or complement the current proposal.

For career proposals and specifications to prolong a career grant, it is also mandatory to include information on all awarded grants and submitted proposals that include funding of the applicant.

Note that the terms for SNSA grants have general rules concerning grant decisions based on false or incomplete information on other funding sources.

AFTER SUBMISSION

Applications are assessed by an advisory committee of SNSA, often supplemented by external expert reviewers and programmatic constraints from SNSA.

Additional information

In case new information becomes available after the proposal deadline, applicants may inform SNSA (in English) to allow the new information to be taken into account. For example, information on new schedules for space missions or allocation of telescope time (please include proof) can be conveyed in this way. Please note that applicants are not allowed to use this avenue to improve their proposals with information that should reasonably have been available at the deadline.

Decisions

In general, calls with deadlines in March-April are assessed by the Science Advisory Committee at its meeting in May-June. SNSA grant decisions may follow soon afterwards or may come later in the calendar year.

For calls with deadline in April or later, the final recommendation by the advisory structure can be expected in November-December, usually followed by an SNSA decision or announcement within a few days. Special schedules may apply for individual calls.

In some years, formal rules related to limits on commitments for future years (*bemyndiganderam*) may force the formal grant decision to be postponed to early January.

Applicants can expect feed-back on their proposals after the grant decision.

GRANTS

Type and extent of support

The research grants provide traditional research support, with funding at the disposal of a university entity or research institute (*medelsförvaltare*), in accordance with standard terms (*generella villkor*) of SNSA. The funding for a calendar year is normally provided as monthly instalments. Individual grants are normally limited to a maximum of 3-4 years, but SNSA can make longer-term commitments when appropriate.

Publication of results, data policy and open access

SNSA adheres to the basic principle that results and data stemming from publically funded research must be made available on-line to other researchers and the general public free of charge without unnecessary time delay. The objectives are to ensure that other scientists will be able to use data in future for other projects and to bring more scientific value of investments as an evident part of the knowledge society.

Publication of results
Researchers supported, partly or fully, from research grants from SNSA shall make all reasonable efforts to make sure the results are published in esteemed international journals. The publications must acknowledge support from the Swedish National Space Agency (SNSA). Results of original research must be made freely available online for reading and down-loading within 6 months from original publication. A copy of publications with associated metadata standards must be placed in a repository within 6 months from original publication.

Data Policy
A data management plan is required for projects where new raw data collection constitutes a major component, and it must be outlined in the proposal.

Reporting

Grant holders must report in accordance with terms of the grant, which usually involves the following:

- Financial Report (ekonomisk återrapportering), both yearly and finally.
- Final Activity Report (*slutlig verksamhetsrapportering*) at the end of the project.

STAY INFORMED

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

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

CONTACTS

In case of questions, please get in touch as follows:

- For technical questions on the **Prisma** application system, use contact in the menu at:
    - English: https://prismasupport.research.se/user-manual.html
    - Swedish: https://prismasupport.research.se/

- General questions on **SNSA calls** for research: Per.Magnusson@snsa.se

- Questions on the **individual call**: See specific instructions for the call.