

## MARVIS - Multidisciplinary Applied Research Ventures in Space

### Call for proposals 2022

The Ordinance on the Promotion of National Activities in the Space Sector (NASO), adopted by the Federal Council, entered into force on 1 February 2022. [NASO](#)<sup>1</sup> foresees grants to support consortia projects in *Multidisciplinary Applied Research Ventures in Space* (MARVIS). Based on NASO, the Swiss National Science Foundation (SNSF) launches the present call through a mandate by the State Secretariat for Education, Research and Innovation (SERI). It has an annual budget of up to CHF 3.5 Mio<sup>2</sup>. The SERI plans to mandate calls every 2-4 years.

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#### 1. Purpose and scope

The MARVIS funding instrument aims at developing specific core competencies in the space sector at the higher education research centres (under Article 4 letter c number 1 and 2 RIPA<sup>3</sup>) as well as their national and international networks; maintaining and strengthening Switzerland's position in strategically important and future-oriented research and innovation fields in the space sector; implementing Swiss space policy; gearing research and innovation work in the space sector to the needs and long-term strategies of partners in industry.

#### 2. Application procedure

##### 2.1 Eligibility of MARVIS projects

<sup>1</sup> A MARVIS project is eligible for funding if the following criteria are met:

- a) It is a research or innovation project in the space sector that is of national importance.
- b) Its multidisciplinary character is mirrored by a consortium that consists of at least two higher education research centres and at least one national or international industrial partner.
- c) One or several of the higher education research centres according to [RIPA](#)<sup>3</sup> article 4 letter c numbers 1 and 2 are responsible for the project; and
- d) It has a network of organisations and institutions that goes beyond the members of the consortium.

<sup>2</sup> The requirements set out in article 13 of the [SNSF Funding Regulations](#)<sup>4</sup> must be met.

##### 2.2 Eligibility criteria for applicants and project partners

<sup>1</sup> MARVIS grants are awarded to one or more applicants affiliated at the higher education research centers in Switzerland (according to [RIPA](#)<sup>3</sup> article 4 letter c numbers 1 and 2).

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<sup>1</sup> <https://www.fedlex.admin.ch/eli/cc/2021/929/de>

<sup>2</sup> The exact amount may vary and is subject to approval by the Swiss Parliament.

<sup>3</sup> [https://www.fedlex.admin.ch/eli/cc/2013/786/en#art\\_4](https://www.fedlex.admin.ch/eli/cc/2013/786/en#art_4)

<sup>4</sup> <https://www.snf.ch/en/97JmAecSwqB12X8m/page/funding/documents-downloads/regulations-funding-regulations>

<sup>2</sup> Natural persons, who are employees of a research center (according to [RIPA](#)<sup>3</sup> article 4 letter c numbers 1 and 2), are eligible to submit an application. One applicant acts as corresponding applicant (according to the [SNSF Funding Regulations](#)<sup>4</sup> article 12 number 4).

<sup>3</sup> Scientific research is deemed to be conducted in Switzerland or to be closely linked to Switzerland if the applicant is employed as a researcher at a higher education institution or at a research institution outside the higher education sector that is domiciled in Switzerland and whose basic financing is predominantly Swiss in accordance with Swiss law, or if the applicant has been given an assurance of such employment in writing. The relevant place of research may be located outside Switzerland.

<sup>4</sup> The research activities of each applicant, along with any scientific teaching activities, must constitute the equivalent of at least 50% FTE. Researchers devoting less than 50% of their time to scientific activities are eligible to submit an application if their scientific research and teaching activities are usually carried out as part of another professional activity. The details are set out in the [General implementation regulations for the Funding Regulations](#)<sup>5</sup> issued by the Research Council.

<sup>5</sup> Applicants must be able to show that they have the scientific qualifications and background required for the relevant funding scheme and must provide proof that they are making a substantial contribution to the proposed research project.

<sup>6</sup> The industrial partners are represented by natural persons. They are listed as project partners.

### 2.3 Financial aspects

<sup>1</sup> The average granted amount by the confederation for a MARVIS grant can be up to CHF 800k per year. It is expected that the requested funding follows a spending profile where the required amount at the beginning and the end of the grant is lower than the CHF 800k per year, and in the peak the maximum amount per year cannot exceed CHF 1.2 Mio.

<sup>2</sup> At least 60% of the granted amount shall be distributed evenly among the higher education research centres within the consortium. The remaining 40% can be distributed according to project needs.

<sup>3</sup> The granted amount must be complemented with at least 100% matching funds from the MARVIS consortium. These in-kind contributions can be in the form of costs for subcontracting. At least 10% of the industrial partner's own contributions must be made in cash.

<sup>4</sup> The costs listed in the [SNSF Funding Regulations](#)<sup>4</sup>, article 28 are eligible for funding, except: the salary of the applicants; and project partners may not charge costs for subcontracting to the project. In addition, chapter 2 of the [General implementation regulations for the Funding Regulations](#)<sup>5</sup> applies.

### 2.4 Submission of applications

<sup>1</sup> The deadline for the submission of MARVIS proposals is 1 February 2023.

<sup>2</sup> MARVIS proposals must be submitted using the mySNF proposal submission system.

<sup>3</sup> The requested duration of MARVIS projects must be between one and 7 years. Initially, a MARVIS project will be funded for a duration of maximum 4 years. A subsequent request for prolongation is possible (see Chapter 4).

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<sup>5</sup> <https://www.snf.ch/en/Zi65otScMDqzyALN/page/funding/documents-downloads/regulations-general-implementation-regulations>

<sup>4</sup> All documents must be submitted at the deadline given above. They consist of:

- a) A **research plan** structured as follows:
  - I. General description and current status of the project (maximum 5 pages):
    - (1) description of the contributions of all the participants and partners and their prior collaborations
    - (2) added value of the collaborative effort of the consortium
    - (3) innovation potential and degree of interdisciplinarity of the project
    - (4) conformity of the project with the objectives of the Swiss space policy and the expected added value for this policy; embedding of the project in Switzerland's international research cooperations, in particular with the European Space Agency ESA
  - II. For each subproject (maximum 3 pages each):
    - (1) current status of the subpart of the project
    - (2) planned activities
    - (3) scientific and technological relevance and impact relative to the overall experiment
  - III. Time plan and milestones of the overall project as well as of its subparts (max 1 page)
  - IV. Planned measures for knowledge and technology transfer; planned measures to promote early career researchers and equal opportunities (max 1 page)
  - V. Risk and risk mitigation plan (max 1 page)
- b) the **CVs of the applicants** (using the SNSF standardised CV),
- c) **Supplementary documents** (confirmation letters of the industrial partner(s) confirming the cooperation and co-financing, drafts of IP agreements, ...).
- d) In addition, **detailed information on the requested funding** for the first part (up to 4 years) must be provided on *mySNF*, as described in chapter 2.3 above. For projects with a duration of more than 4 years, a supplementary document must be attached to the initial submission, detailing the budgetary requirements for the period beyond the first 4 years.

### **3. Evaluation process, assessment criteria and grants**

#### **3.1 Consideration of proposals**

<sup>1</sup> Only proposals that meet the formal requirements according to Chapter 2 are considered for evaluation.

<sup>2</sup> Proposals are not considered if their objectives manifestly do not match the purpose and scope of MARVIS as explained in Chapter 1 of this document or if they manifestly do not fulfil one of the evaluation criteria listed in Chapter 3.

#### **3.2 MARVIS evaluation procedure**

The evaluation of MARVIS proposals is performed in two steps:

- a) In Step 1 of the evaluation, the scientific-technical quality of the project is evaluated by the SNSF. This evaluation is based on the project outline, which consists of the research plan as described above, complemented with the CVs as well as the supplementary documents (as described in 2.4.4 c). Based on the Step 1 evaluation, the SNSF submits a recommendation to SERI, as well as an assessment of the alignment of the projects with ESA activities.

- b) In step 2 of the evaluation, the SERI will evaluate the project according to the space, research and innovation policy. For this, the project plan is made accessible to SERI. This project plan consists of the project outline described above, complemented with detailed information on the requested funding.

### 3.2.1 Step 1: Evaluation of the scientific-technical quality of the project

<sup>1</sup> The MARVIS Steering Committee (see Chapter 5.1) appointed by the Presiding Board of the National Research Council of the SNSF is responsible for step 1 of the evaluation on scientific and technical criteria. This evaluation will be conducted in a fully remote setting. Discipline-specific experts will evaluate proposals that meet the formal requirements. At least three reviewers per application will independently prepare separate evaluation reports, one of them is an expert from the ESA in the domains of industrial policy and technology.

<sup>2</sup> In the first evaluation step, the SNSF is applying the following evaluation criteria:

- a) the scientific and technical quality of the project, its innovation potential and its level of interdisciplinarity;
- b) the scientific and technical quality of the university and industrial partners involved, their organisational integration into the project and the planned measures for knowledge and technology transfer;
- c) the professional qualifications of the researchers involved, including the complementarity of the expertise and knowledge of the applicants, the added value of the collaborative character of the proposal
- d) the planned measures to promote young researchers and equal opportunities.

<sup>3</sup> Evaluation scores are given for each of these criteria and calculated to a final numerical score. Proposals are ranked based on the final score awarded by the individual reviewers in their evaluations, according to the best practice evaluation principles applied by the SNSF.

<sup>4</sup> The MARVIS Steering Committee will propose to the Presiding Board, which proposals should proceed to step 2, based on the outcome of the evaluation described above.

<sup>5</sup> The Presiding Board of the SNSF Research Council decides which applications will proceed to the second evaluation step, based on the recommendation of the MARVIS Steering Committee.

### 3.2.2 Step 2: Evaluation according to the space, research and innovation policy

<sup>1</sup> In the second evaluation step, the SNSF will provide a ranked list of the proposals considered for step 2 to SERI, who will evaluate the proposals according to the following space, research and innovation policy criteria:

- a) the conformity of the project with the goals and the expected added value for Swiss space policy and the federal strategies derived therefrom;
- b) the inclusion of the project in international research projects, in particular with ESA, in which Switzerland is involved;
- c) the innovation potential for Swiss industry and its financial participation in the project costs;
- d) the adequacy of the requested funding, including the available third-party funding.

<sup>2</sup> The SERI will consult other offices or research bodies that are affected by the project or that could have an interest therein.

### 3.3 Decisions

<sup>1</sup> The Presiding Board of the SNSF Research Council approves the decision of the MARVIS Steering Committee on the ranking of the evaluated proposals in step 1 of the evaluation. The Presiding Board will also decide which proposals will proceed to the second evaluation step. The SNSF communicates the decision to the applicants in the form of a ruling. Such rulings may be appealed against before the Federal Administrative Court

<sup>2</sup> The SERI will perform the second evaluation step as described in Chapter 3.2.2.

<sup>3</sup> The Federal Department of Economic Affairs, Education and Research (EAER) decides on the approval or rejection of the MARVIS proposals. These decisions are based on the recommendations of SERI.

<sup>4</sup> The EAER communicates the decision to the applicants in the form of a ruling, which mentions, in particular, the amount of funds to be allocated to the project as well as any conditions or requirements. Such rulings may be appealed against at the Federal Administrative Court.

<sup>5</sup> In case of a positive decision, SERI concludes for each funding period a service level agreement with the higher education research centres responsible for the project.

## 4. Conduct of the approved projects

<sup>1</sup> Successful MARVIS grants can start at the earliest on 1 December 2023.

<sup>2</sup> Before the end of a funding period, an application for extension of the project may be submitted to SERI, who decides on the extension.

## 5. Organisational provisions

### 5.1 MARVIS Steering Committee

<sup>1</sup> The MARVIS Steering Committee oversees the evaluation of the MARVIS proposals and makes a proposal to the Presiding Board on which proposals will proceed to the step 2 of the evaluation, based on the result of the evaluation procedure described in chapter 3.2.

<sup>2</sup> The MARVIS Steering Committee consists of national and/or international experts, The number of members of the MARVIS Steering Committee is between 3 and 5.

<sup>3</sup> The MARVIS Steering Committee members are selected by the Presiding Board of the SNSF Research Council.

<sup>4</sup> All MARVIS Steering Committee members are elected for the duration 4 years, and can be renewed for another term of 4 years.

<sup>5</sup> The final MARVIS Steering Committee composition is approved by the Presiding Board of the SNSF Research Council. Members of the MARVIS Steering Committee are not eligible to submit applications.

<sup>6</sup> The members of the MARVIS Steering Committee are remunerated in accordance with the usual SNSF rates.

<sup>7</sup> The Presiding Board of the SNSF Research Council can nominate ad-hoc replacements if panel members are unable to attend the evaluation meeting.

## 6. Final provisions

<sup>1</sup> In the absence of a specific provision in these Regulations, the provisions of the Funding Regulations and the directives on the use of grants apply.

<sup>2</sup> These Regulations are issued by the Presiding Board of the National Research Council on 23 August 2022 and enter into force on 1 September 2022.

## 7. Contact / further information

For information about the call please do not hesitate to contact the MARVIS team at the SNSF (e-mail [marvis@snf.ch](mailto:marvis@snf.ch)). You may also refer to the SNSF Website for MARVIS<sup>6</sup> for further information.

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<sup>6</sup> <https://www.snf.ch/en/75vVX8QrZjp4miU/funding/marvis>