

# MARVIS - Multidisciplinary Applied Research Ventures in Space

# Call for proposals 2024

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. NASO¹ 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 based on a mandate by the State Secretariat for Education, Research and Innovation (SERI). It has an annual budget of up to CHF 3.5 Mio². The SERI plans to mandate calls every 2-4 years.

# 1. Purpose and scope

The MARVIS funding instrument aims to develop specific core competencies in the space sector at the higher education research centres (under Article 4 letter c numbers 1 and 2 RIPA³) 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 Article 4 letter c numbers 1 and 2 RIPA<sup>3</sup> are responsible for the project; and
- d) It has a network of organisations and institutions that goes beyond the members of the consortium.

## 2.2 Eligibility criteria for applicants and project partners

<sup>1</sup> MARVIS grants are awarded to one or more applicants affiliated with a higher education research centre (according to Article 4 letter c numbers 1 and 2 RIPA<sup>3</sup>).

<sup>&</sup>lt;sup>2</sup> The requirements set out in Article 13 of the SNSF Funding Regulations <sup>4</sup> must be met.

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

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

<sup>&</sup>lt;sup>3</sup> https://www.fedlex.admin.ch/eli/cc/2013/786/en

<sup>4</sup> https://www.snf.ch/en/97JmAecSwgB12X8m/page/funding/documents-downloads/regulations-funding-regulations

- <sup>2</sup> Natural persons, who are employees of a research centre (according to Article 4 letter c numbers 1 and 2 RIPA3), are eligible to submit an application. One applicant acts as corresponding applicant (according to Article 12 paragraph 4 of the SNSF Funding Regulations<sup>4</sup>).
- <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 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 <u>regulations for the Funding Regulations</u><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 amount granted 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 amount granted 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 amount granted must be complemented with funds provided by the MARVIS consortium matching at least 100% of the amount granted. These in-kind contributions can be in the form of subcontracting costs. At least 10% of the total contributions of the partners in industry must be made in cash.
- <sup>4</sup> Contributions under paragraph 3 corresponding to eligible costs according to Article 28 of the SNSF Funding Regulations can be accounted for as matching funds; in addition, the salary of applicants (in proportion to their involvement in the project) can also be accounted for as matching funds. Indirect costs related to the MARVIS project and borne by the host institutions may be accounted for as matching funds up to a maximum of 15% of the in-kind contribution. Project partners may not charge costs for subcontracting to the project. In addition, Section 2 ("Eligible costs") 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 17.00.00h Swiss local time on 16 December 2024.

 $<sup>^{5}\ \</sup>underline{\text{https://www.snf.ch/en/Zi65otScMDqzyALN/page/funding/documents-downloads/regulations-general-implementation-regulation}$ 

- <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 1 and 7 years. Initially, a MARVIS project will be funded for a duration up to a maximum of 4 years (first funding period). A subsequent request for extension is possible (see Chapter 4).
- <sup>4</sup> All documents must be submitted by 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 5 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 subprojects (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, budget tables).
  - d) In addition, detailed information on the requested funding for the first funding period (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**

### Consideration of proposals 3.1

- <sup>1</sup> Only proposals that meet the formal requirements according to Chapter 2 are considered for evalua-
- <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 below 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 above under Chapter 2.4.paragraph 4 letter c). Based on Step 1 of the evaluation, the SNSF submits a recommendation to SERI, as well as an assessment of the project's compatibility and coherence with ESA activities.
- b) In step 2 of the evaluation, SERI will evaluate the project according to the space, research and innovation policy. For this, the project plan is made accessible to SERI. The project plan consists of the project outline described above (see Chapter 2.4.paragraph 4 letter c), complemented with detailed information on the requested funding (see Chapter 2.4.paragraph 4 letter c).

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

<sup>1</sup> The MARVIS Steering Committee (see Chapter 5.1) appointed by the Presiding Board of the National Research Council of the SNSF (Presiding Board) 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 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 and 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 recommend 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 decides which proposals will proceed to the second evaluation step, based on the recommendation of the MARVIS Steering Committee.

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

- <sup>1</sup> For the second evaluation step, the SNSF will provide SERI with a ranked list of the proposals considered for step 2. SERI will evaluate these 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> 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 issues a decision on the recommendation submitted by the MARVIS Steering Committee on the ranking of the evaluated proposals in step 1 of the evaluation (see Chapter 3.2.1. paragraph 4). The Presiding Board decides which proposals proceed to the second evaluation step. The SNSF communicates the decision to the applicants in the form of a ruling that may be appealed against before the Federal Administrative Court
- <sup>2</sup> SERI will perform the second evaluation step as described in Chapter 3.2.2 and propose to the Federal Department of Economic Affairs, Education and Research (EAER) which applications should be accepted or rejected.
- <sup>3</sup> The EAER decides on the approval or rejection of the MARVIS proposals, based on the recommendations of SERI.
- <sup>4</sup> The EAER communicates the decision to the applicants in the form of a ruling. For accepted projects, it mentions in particular the amount of funds to be allocated to the project for the first funding period as well as any conditions or requirements. Such rulings may be appealed against before the Federal Administrative Court.
- <sup>5</sup> For accepted projects, SERI concludes for each funding period a service 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 2025.
- <sup>2</sup> Before expiry of a funding period, an application for the extension of the project may be submitted to SERI, who decides on the extension.

## 5. **Organisational provisions**

## **MARVIS Steering Committee** 5.1

- <sup>1</sup> The MARVIS Steering Committee oversees step 1 of the evaluation of the MARVIS proposals and makes a recommendation to the Presiding Board of the proposals that should proceed to step 2 of the evaluation, based on the result of the evaluation procedure described in chapter 3.2.1.
- <sup>2</sup> The MARVIS Steering Committee consists of national and/or international experts. The number of MARVIS Steering Committee members is between 3 and 5.
- <sup>3</sup> The MARVIS Steering Committee members are elected by the Presiding Board.

- <sup>4</sup> All MARVIS Steering Committee members are elected for 4 years. They may be re-elected once for another term of 4 years.
- <sup>5</sup> The final MARVIS Steering Committee composition is approved by the Presiding Board. Members of the MARVIS Steering Committee are not eligible to submit applications.
- <sup>6</sup> Members of the MARVIS Steering Committee are remunerated in accordance with the usual SNSF rates.
- <sup>7</sup> The Presiding Board can nominate ad-hoc replacements if MARVIS Steering Committee 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 of the SNSF and the General implementation regulations for the Funding Regulations apply.
- <sup>2</sup> These call provisions are issued by the Presiding Board of the National Research Council on 4 June 2024 and enter into force on 16 September 2024.
- <sup>3</sup> The transitional provisions of Article 33 paragraphs 3 and 4 of the Organisational Regulations for the Research Council applies to the responsibilities and procedures of the Research Council and its Presiding Board.

#### 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). You may also refer to the SNSF Website for MARVIS<sup>6</sup> for further information.

<sup>&</sup>lt;sup>6</sup> https://www.snf.ch/en/75vVX8QqrZip4miU/funding/marvis