



Call for Capacity-Building Projects and Mentoring Partnerships in Small Satellites Development and Operations

An opportunity for universities and research institutions in developing countries — and for institutions willing to become mentors

The **COSPAR Panel on Capacity Building (PCB)** invites universities and research institutions in developing countries to submit proposals for **capacity-building projects in the development, testing, operation and scientific use of small satellites**.

At the same time, COSPAR invites universities, research institutions, laboratories, space agencies and companies with relevant expertise to express their interest in contributing to these projects as **mentors and technical partners**.

The initiative builds on the experience of **COSPAR-1**, a pilot project launched in 2024 in collaboration with the International Satellite Program in Research and Education (INSPIRE) and the Laboratory for Atmospheric and Space Physics (LASP).

The COSPAR-1 experience

The COSPAR-1 pilot involved a team from Peru consisting of **five young engineering students and one supervisor**. In 2024 and 2025, the team participated in two **10-week hands-on development stays at LASP in Boulder, Colorado, the home institution of the INSPIRE programme**.

Working directly with experienced engineers and scientists, the team acquired practical experience in the design, construction and integration of a 3U small satellite for space-weather research.

The results go well beyond the satellite itself. **Peru has been the principal beneficiary of the initiative:** the project is leading to the establishment of a **small-satellite development laboratory at the participating university in Lima**, together with a **main ground communication station for COSPAR-1**.

The spacecraft is expected to be completed by the end of 2026, tested in early 2027 and, subject to final qualification and launch opportunities, placed into orbit in mid-2027.

The next development phase of COSPAR-1 will take place at the premises of **HEX-20 in India**, which has been an important partner in the development of the satellite.

COSPAR-1 demonstrates that capacity building can go well beyond short-term training. With institutional commitment, international partnerships and sustained mentoring, young researchers can acquire the skills needed to develop and operate real space hardware while creating **lasting scientific and technological capabilities in their own institutions**.

What are we looking for?

COSPAR PCB is seeking proposals for projects that use **small satellites and related space technologies as a vehicle for sustainable capacity development**.

Projects may include, for example:

- CubeSat or other small-spacecraft development;
- satellite subsystems and scientific instruments;
- assembly, integration and testing of space hardware;
- ground stations and satellite operations;
- scientific applications of satellite data;
- space-weather, Earth-observation, astronomy, planetary missions, atmospheric or other scientific missions;
- development of university laboratories and research infrastructure;
- hands-on training of students and early-career researchers.

Projects **do not need to reproduce COSPAR-1**. Applicants are encouraged to address their own scientific priorities, institutional capabilities and national or regional needs.

The capacity-building philosophy

COSPAR follows a “**Learning by Doing**” philosophy. Priority will therefore be given to projects in which students and early-career researchers actively participate in the development of real hardware, software, scientific products or operational capabilities.

An essential objective is that the knowledge, infrastructure and expertise generated through the project remain available after the initial COSPAR-supported activities. Projects should therefore contribute to a **sustainable local or regional capacity** capable of supporting future generations of students and researchers.

Institutional commitment and potential

Applicants from developing countries should demonstrate a realistic basis from which the proposed capacity-building project can develop. This may include:

- a team of **engineering or science students with some experience or interest in small-satellite development**, together with young researchers and supervisors;
- appropriate or developing **scientific and technical expertise**;
- **existing or planned laboratory and computing facilities**;
- institutional resources and commitment to support the project;

- potential for **local, national or complementary international support**;
- potential partnerships that could strengthen the project;
- a credible plan for **maintaining and expanding the capacity developed through the project**.

Applicants are **not expected to have all the required capabilities or infrastructure in place** at the time of application. The potential to develop these capabilities through the project, together with a clear institutional commitment, will be an important consideration in the selection process.

COSPAR particularly encourages applications from institutions seeking to **establish or significantly strengthen their first sustained capacity in small-satellite development and space research**.

Mentoring and partner institutions

COSPAR also welcomes expressions of interest from **universities, research institutions, laboratories, space agencies and companies with established expertise in small-satellite development and operations** that would like to contribute to the capacity-building process as mentors or technical partners.

The COSPAR-1 experience demonstrated the value of such partnerships. **INSPIRE and LASP in Boulder, Colorado, provided the principal mentoring and hands-on development environment for the Peruvian team**, enabling students and their supervisor to acquire practical experience while working directly on the development of their satellite.

Mentor institutions may contribute through:

- hands-on training and mentoring of students and young researchers;
- access to laboratories, facilities and specialised expertise;
- advice on spacecraft design, integration, testing and operations;
- support in establishing or strengthening laboratories and ground stations;
- joint development activities and technical reviews;
- continued scientific and technical interaction with the emerging team;
- direct and/or in-kind contributions

Mentoring partnerships may be proposed together with an application from a developing-country institution, or independently by institutions interested in becoming part of the **COSPAR capacity-building network**.

COSPAR particularly encourages **long-term partnerships**, in which mentoring gradually evolves from intensive training towards collaboration between institutions with complementary capabilities.

COSPAR support

Depending on the project and available resources, COSPAR PCB may support:

- specialised hands-on training and mentoring;

- travel and subsistence for selected participants;
- access to specialised facilities and expertise;
- selected hardware, software or development resources;
- scientific and technical collaboration.

COSPAR support is intended to act as a **catalyst for capacity development**, rather than to cover the full cost of a satellite mission. Applicants are therefore expected to identify complementary sources of local, national or international support.

Selection criteria

Proposals will be evaluated according to:

1. **Capacity-building potential and long-term sustainability**
2. **Scientific and technical merit and feasibility**
3. **Hands-on participation of students and early-career researchers**
4. **Institutional commitment and potential for developing infrastructure and expertise**
5. **Local, national and complementary financial support**
6. **Quality and potential of national, regional and international partnerships**
7. **Potential regional impact and multiplication of training**
8. **Potential for continuation, further missions and scientific activities**
9. **Potential industrial support**

For mentor institutions, consideration will be given to the **quality and relevance of the expertise offered, available facilities, mentoring capacity and potential for sustained collaboration**.

Who can participate?

The call has two complementary components:

1. Capacity-building projects

Universities and research institutions in developing countries with an established or emerging interest in space science and technology are invited to propose projects.

2. Mentoring partnerships

Universities, research institutions, laboratories, space agencies and companies with relevant expertise are invited to offer mentoring, technical support, facilities or other forms of collaboration.

Applications involving several institutions, regional partnerships or national space agencies are particularly encouraged.

From COSPAR-1 to the next generation

COSPAR-1 has demonstrated that a relatively small initial investment, combined with international expertise, institutional commitment and hands-on training, can become the starting point for a **lasting national capability in space science and technology**.

The next phase of the COSPAR initiative aims to build on this experience by supporting **new teams, new institutions and new regions**, while expanding the network of institutions able to contribute as mentors and technical partners.

The objective is not simply to produce more small satellites. It is to enable young researchers and institutions in developing countries to become **active participants in space research, technology development and the scientific exploitation of space missions**.

In the longer term, COSPAR aims to develop a **growing international network in which institutions that acquire new capabilities can themselves become mentors and partners for future projects**.

Application

Interested institutions should submit a brief project proposal or expression of interest describing the objectives, team or expertise offered, institutional environment, existing or planned capabilities, potential partnerships, expected outcomes and plans for long-term sustainability.

Application deadline: 30 November 2026

For further information and inquiries:

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