

# REVITALIZING STEM EDUCATION TO EQUIP NEXT GENERATIONS WITH STEM COMPETENCY



**APPLICATIONS  
OPEN UNTIL 22.04.2024**

# BACKGROUND

UNESCO and Huawei Technologies have launched the project **Revitalizing STEM Education to Equip Next Generations with STEM Competency** to improve STEM education in Europe, notably in the region of South-East Europe. The project aims to create innovative educational solutions, to increase institutional and professional capabilities and to share knowledge and best practices at both regional and global levels. As recognised by the Transforming Education Summit, the development of STEM education is critical in achieving the objectives outlined by the United Nations in its 2030 Agenda and the Sustainable Development Goals, notably **SDG 4** and **SDG 9**.

The 15-months project aims at revitalising STEM learning models for next generations to confront the most pressing societal needs and global challenges. Building on the knowledge generated during the first phase of the project, a STEM education clearinghouse will be established to serve as a knowledge hub for the region, enabling knowledge-sharing and the scaling up of good practices in STEM education.

The project **Revitalizing STEM Education to equip Next Generations with STEM Competency** will focus on the two following outcomes:

**Outcome 1:** Educators and learners in the region are able to benefit from the improvement of the teaching and learning practices based on the promotion of STEM education research and innovation at the regional level.

**Outcome 2:** Learners and stakeholders in STEM education in the region are able to benefit from the STEM clearinghouse to support knowledge sharing and form a Regional STEM Alliance to sustain collaboration and synergies.

For the **Outcome 1**, the project will identify innovative **STEM Research Activities** and **STEM Educational Activities** developed and implemented by up to five project teams over six months. At the end of the six-month period of activities, project teams will be invited to a co-creative workshop, wherein the project teams will consolidate their results and collaboratively develop a STEM education knowledge hub and build a regional inventory of STEM resources informed by their research and educational activities.

For **Outcome 2**, the project teams will participate in initiatives within the framework of a **regional STEM clearinghouse**, which will serve as a platform enabling the gathering, evaluating and disseminating of educational resources and knowledge. This will include participation in a peer learning session in order to share results, best practices, methodologies and lessons learnt and to contribute to the generation of relevant STEM educational resources.

## ELIGIBLE TOPICS

Each proposal shall include two components, one related to STEM Research Activities and one related to STEM Educational Activities.

For **STEM Research Activities**, the research should focus on one of the following domains:

- » Correlation between investments in STEM and educational outcomes
- » Female participation in STEM education
- » Flexible teaching and learning models and inclusive approaches
- » Technologies development and application in STEM education in schools
- » Effectiveness of the educational system to deliver STEM education
- » National ecosystem and policies for STEM education

For **STEM Educational Activities**, the activities should relate to one of the following modalities:

- » STEM teaching and learning activities for learners
- » Strengthening teacher development and inclusive STEM pedagogies

## ELIGIBLE APPLICANTS

Educational agencies, universities, research agencies, independent experts, NGOs, schools from European countries (with a priority focus on South-East Europe and the Mediterranean) are all eligible applicants. Project proposals will need to consider national and local STEM educational landscapes and coordinate with relevant stakeholders in making sure that the project will contribute to revitalising STEM learning models for future generations.

A supervisory board will select up to five project proposals that include components of **STEM Research Activities** and **STEM Educational Activities**. These components should be related. For example, if the chosen research activity is female participation in STEM education, the project should then implement educational activities aiming at fostering female participation in STEM subjects.

Each selected proposal will receive funding of up to 26,000 USD per project. The selected project teams will need to provide a detailed budget with itemised costs and an implementation plan of their activities for a duration of **six months** starting April/ May 2024.

Project teams will be working closely with UNESCO on the implementation of their two activities. In particular, UNESCO will work with project teams to ensure the work proposed is linked closely to UNESCO mandates, notably in science and education, and that it is scalable at regional and global levels. UNESCO will also collaborate with the communities involved in the activities.

The five selected project teams will have the opportunity to exchange and support each other throughout the duration of the projects and participate in international events organised by UNESCO, or in which UNESCO is participating, where feasible.

## CRITERIA FOR SELECTION

Project teams will need to submit an application (see attached form) that will be supported by relevant national authorities. Applicants need to be legal entities and have independent bank accounts.

Applications will be selected using the following criteria:

- » **Completeness of application form duly filled, dated, stamped and signed**
- » **Proven capacity of the project team to fulfil their proposed activities within the timeframe:**
  - For research activities, demonstrated experience of research in the field of STEM, sciences and education, and/or cooperation with a university or a research centre with proven expertise in relation to the chosen research topic;  
(Relationship with a UNESCO Chair or Centre is an advantage.)
  - For educational activities, proven experience of cooperation with schools, track record of contribution in training-the-trainers programmes and experience working on STEM subjects and producing relevant STEM educational materials.  
(Engaging UNESCO Chairs and networks, as well as ASPnet schools, is encouraged.)
- » **Quality and relevance of the application, including coherence between the activities:**
  - For research activities: scientific originality, use of research methodology, potential for development of new knowledge, alignment with UNESCO guidelines and SDG 4 and SDG 9, involvement of universities, research partners, and PhD/MSc students;
  - For the educational activities:
    1. The educational activities shall be developed with the support of local STEM partners to be identified by the applicants and shall favour connections and links with STEM stakeholders including communities outside the schools;
    2. The design of the educational activities shall reflect critical thinking and problem-solving, inquiry-based learning, cross-sectoral skills and citizen science approaches in schools;
    3. The selected innovative educational activities need to be implemented/piloted in STEM related educational institutions or other related learning institutions.
- » **Properly-structured and detailed budget with itemised costs**
- » **Clear plan to implement activities within a six-month timeframe**
- » **Scalability of results in national contexts and within UNESCO networks**
- » **Demonstrated value and feasibility of the proposal**

- » **Consideration of youth and gender dimensions within the project team**
- » **Involvement of and engagement with local stakeholders**
- » **Geographical location (Europe with a specific focus on South-East Europe and the Mediterranean)**

## **SUBMISSION OF APPLICATION FORM**

The following documents must be submitted together with the application form:

- 1. Letter of support or email** from relevant national authorities
- 2. Activity reports** (or links to online activity reports) of the applicant and any additional information demonstrating the required criteria
- 3. Curriculum vitae** of the project coordinator
- 4. Gantt Chart** (template in Annex I of the application form)
- 5. Expected Results matrix** (template in Annex II of the application form)
- 6. Budget** (template in Annex III of the application form)
- 7. Bank Statement** on bank's headed paper, signed and stamped confirming the bank details

Applications must be submitted by **22 April 2024 at 23:59 CET** by email and include the completed application form and all supporting documentation as PDF files in English (French application form can be provided upon request).

Applications should be submitted to [Regional.Bureau-SC@unesco.org](mailto:Regional.Bureau-SC@unesco.org). Applicants may direct questions related to the preparation of the application to the same email address.