United Nations Development Programme

TERMS OF REFERENCE

Job title:	Two international consultants on STEAM education
Duty Station:	Republic of Moldova, Chisinau
Reference to the projects:	Advancing quality education and lifelong learning opportunities for all
Contract type:	Individual Contract
Assignment type:	2 International Consultants
Contract duration:	September 2025 – May 2026
Expected workload:	STEAM Leading consultant: 18 working days (estimative)
	STEAM Consultant: 15 working days (estimative)
Indicative starting date:	1 September 2025

A. PROJECT DESCRIPTION

During 2024 – 2027, UNDP and UNICEF are jointly implementing the Project "Advancing Quality Education and Lifelong Learning Opportunities for All", funded by the European Union. The overarching objective of the project is to contribute to human capital development in the Republic of Moldova, improving the quality and relevance of education and lifelong learning opportunities for all, for better matching the labour market demands. To achieve this, the Program will target the following specific objectives:

1. Strengthen institutions and system for teacher and school leaders' professional development and support the implementation of education policies to enhance quality of teaching and learning (Development Strategy "Education 2030".
2. Improve equitable access for all children to quality education, promoting the development of an inclusive, digital, and resilient education system.
3. Upgrade learning environments through renovation of selected school infrastructures and facilitate the development of the 21st century skills, contributing to better education opportunities for pupils/students and improved efficiency of the school network.

Under this joint Project, UNDP will support the professional development of teachers, promote life-long learning opportunities for adults, and be responsible for implementing interventions under the specific objective number 3 mentioned above, that aims at increasing quality, relevance, and efficiency of learning. More specifically, it will support Ministry of Education and Research in enhancing the learning environments and improving the teaching-learning conditions by setting up modern learning spaces, improvement of school infrastructure of 10 model/aspirational schools. It will also aim at redesigning existing STEEAM learning spaces to facilitate better learning, provision of modern technologies and teaching-learning resources and support the roadmaps for continuous development of digital learning space. The activities will ease the accessibility of students from remote areas to the model/ aspirational schools through access to transportation means and development of an integrated national system for school bus management. In addition, this component aims at designing and rolling-out a digital transformation & STEEAM model in upper-secondary education focusing on teachers' mentorship in using new educational technologies, adopting new pedagogical approaches, support the development of digital educational resources for science disciplines, and support the capacity of school managers to embark upon the process of e-transformation in education.

To support the integration of STEEAM intergated approach, based on best international practices, leading to student centered educational process, two international STEAM consultants will be contracted.

STEAM education in Model Schools

In the Republic of Moldova, the STEAM integrated approach to learning was introduced for the first time in the National Curriculum in 2019. Since then, teachers have implemented inter- and transdisciplinary activities and STEAM projects sporadically, mainly as an extracurricular activity.

The recently approved National Framework Curriculum concept that guides the curriculum review, launched in 2024 by the Ministry of Education and Research, promotes the principle of inter- and trans- disciplinarity integration by capitalizing on connections between topics and concepts of distinct school subjects, introducing new subjects with an integrated character, optional subjects and non-formal activities, all of which aim at developing transversal and transformational skills, necessary for the application of knowledge in diverse and relevant contexts.

STEAM education, along with other cross-curricular themes – literacy, intercultural education, democratic citizenship and human rights, personal development and career guidance, etc. is envisaged to be integrated across different subject areas and study domains, or to be provided as optional subject. Teachers need to be trained to teach in integrated manner. Curricular materials and assessment will be developed increasing the share of content related to solving real world problems.

In 2024 UNDP conducted several capacity building activities aiming to start implementing STEAM approach in 10 beneficiary Model Schools with local trainers. Two training programs for science and math teachers on STEAM integrated approach and Problem-Based Learning have been organized with over 60 teachers participating.

The most common barriers to implementing STEAM education, as reported by teachers from Model Schools, are limited knowledge and experience, time resources, lack of equipment, teaching materials and technologies. Supporting implementation of STEAM integrated approach is timelier and more relevant than ever. To further improve local capacities to implement these new approaches to learning, there is a need to learn from international experience and advanced European educational systems.

B. OBJECTIVES OF THE ASSIGNEMENT

UNDP Moldova intends to contract two international consultants on STEAM education (hereinafter "the consultants") to conduct training activities on STEAM integrated approach for mathematics and science teachers and curriculum authors, peer reviewing the Teacher Guide on STEAM and for developing STEAM teaching and learning scenarios.

To achieve the above-mentioned scope, the following specific goals and tasks shall be carried out by the service providers:

1. **Conduct a one-day online training session on international experience on STEAM integrated education for two groups of mathematics and science curriculum authors.** The training session will be conducted for 50 mathematics and science curricula authors, 25 participants per group.
2. **Carry out a two-day in-person training session for science teachers from 15 Model Schools on topics such as STEAM education, interdisciplinary activities and projects, and other relevant topics to support the project objectives, for a total of 50 participants split in two groups (25 participants per group) carried out consequently**. *The logistical arrangements and costs for the training sessions will be covered by UNDP.*
3. **Peer review of the STEAM methodological guide.** Review the locally developed methodological guidelines on STEAM, which aims to guide teachers in planning, implementation and assessment of STEAM activities and projects. The guide is envisaged to provide practical guidance for conducting hands-on teaching integrated activities and projects, followed by reflective questions. The main objective of these questions is to promote a reflective learning cycle through which the learning and understanding of the concept are acquired more effectively.

4. **Develop 16 STEAM learning scenarios (2 per each grade from 5th to 12th).** STEAM education, along with other cross-curricular themes – literacy, intercultural education, democratic citizenship and human rights, personal development and career guidance, etc., is envisaged to be integrated across different subject areas and study domains, or to be provided as optional subject. The curriculum revision groups coordinators are responsible for identifying the transdisciplinary relevant connections among various subjects, which are also relevant for the development of key competences and will revise the curricular areas to integrate the cross-curricular themes. Consequently, the themes proposed by consultants should be aligned with the curriculum revision process and endorsed with curriculum revision working groups coordinators. Based on the selected cross-curricular themes, develop 16 learning scenarios for grades 5th-12th (2 scenarios per each grade). The Leading consultant will develop 10 scenarios for lower-secondary education (grades 5-9). The second consultant will develop 6 scenarios for upper-secondary education (grades 10-12). The Leading consultant will oversee and ensure the quality of all submitted scenarios.
5. **Develop a report on the implemented activities** with specific information on the challenges, conclusions and recommendations on further needed support for implementing STEAM integrated approach in Moldova.

C. KEY DELIVERABLES AND TENTATIVE TIMETABLE

STEAM Leading consultant

No.	Key deliverables	Estimate Workdays	Tentative deadline
1	**Conduct a one-day training session online on international experience on STEAM integrated education for mathematics and science curriculum authors of lower secondary education.** **Deliverable 1:** Training agenda and training materials for the one-day training session online on international experience on STEAM integrated education for mathematics and science curriculum authors of lower secondary education developed. Report on the training program, including methodology, content of the program, group dynamic, recommendations for further capacity building activities, developed and submitted to UNDP.	3 WDs	By 30 September 2025
2	**Carry out one two-day in-person training session for science teachers of 15 Model schools** for lower secondary education on topics such as STEAM education, interdisciplinary activities and projects, and other relevant topics to support the project objectives, for a total of 50 participants (divided into two groups and carried out consecutively). **Deliverable 2**. Training agenda and training materials for the one two-day in-person training session for science teachers of 15 Model schools for lower secondary education on topics such as STEAM education, interdisciplinary activities and projects, and other relevant topics to support the project objectives developed. Report on the training program, including methodology, content of the program, group dynamic, recommendations for further capacity building activities, developed and submitted to UNDP.	6 WDs	By 20 October 2025
3	**Peer review of the STEAM methodological guide from the perspective of lower secondary education.** Review the locally developed methodological guidelines on STEAM, which is supposed to guide teachers in planning, implementation and evaluation of STEAM activities and projects.	2 WDs	By 15 November 2025

	Deliverable 3: STEAM methodological guidelines reviewed from the perspective of lower secondary teaching and learning practices (gymnasium) and submitted to UNDP.		
4	**Develop 10 unique STEAM teaching and learning scenarios, aligned with mathematics and science national curricula in lower-secondary education (2 scenarios per each grade from 5th – 9th).** **Deliverable 4:** 10 STEAM teaching and learning scenarios for lower-secondary education, developed and submitted to UNDP.	5 WDs	By 30 January 2025
5	**Develop a report on the implemented activities** with specific information on the challenges, conclusions and recommendations on further needed support for implementing STEAM integrated approach in lower-secondary education in Moldova. **Deliverable 5.** Report on the implemented activities containing recommendations on further needed support for implementing STEAM integrated approach in lower-secondary education in Moldova, developed and submitted to UNDP.	2 WDs	By 30 February 2025

STEAM Consultant

No.	Key deliverables	Estimate Workdays	Tentative deadline
1	**Conduct a one-day training session online on international experience on STEAM integrated education for mathematics and science curriculum authors of upper secondary education (lyceum).** **Deliverable 1:** Training agenda and training materials for the one-day training session online on international experience on STEAM integrated education for mathematics and science curriculum authors of upper secondary education developed. Report on the training program, including methodology, content of the program, group dynamic, recommendations for further capacity building activities, developed and submitted to UNDP.	3 WDs	By 30 September 2025
2	**Carry out one two-day in-person training session for science of upper secondary education teachers of 15 Model schools** on topics such as STEAM education, interdisciplinary activities and projects, and other relevant topics to support the project objectives, for two groups of 25 teachers each (total of 50 participants) carried out consequently. **Deliverable 2**. Training agenda and training materials for one two-days in-person training session for science of upper secondary education teachers of 15 Model schools on topics such as STEAM education, interdisciplinary activities and projects, and other relevant topics to support the project objectives developed. Report on the training program, including methodology, content of the program, group dynamic, recommendations for further capacity building activities, developed and submitted to UNDP.	6 WDs	By 20 October 2025

3	**Peer review of the STEAM methodological guide from the perspective of upper secondary education.** Review the locally developed methodological guideline on STEAM, which is supposed to guide teachers in planning, implementation and evaluation of STEAM activities and projects. **Deliverable 3:** STEAM methodological guidelines reviewed from the perspective of upper secondary teaching and learning practices (lyceum) and submitted to UNDP.	2 WDs	By 15 November 2025
4	**Develop 6 unique STEAM teaching and learning scenarios, aligned with mathematics and science national curricula in upper-secondary education (2 scenarios per each grade from 10th – 12th).** **Deliverable 4:** 6 STEAM teaching and learning scenarios in upper-secondary education developed and submitted to UNDP.	3 WDs	By 30 January 2025
5	**Contribute to the development of the report on the implemented activities** with specific information on the challenges, conclusions and recommendations on further needed support for implementing STEAM integrated approach in upper secondary education in Moldova. **Deliverable 5.** Contribution on the deliverables relevant to upper secondary education, to the report on the implemented activities containing recommendations on further needed support for implementing STEAM integrated approach in upper-secondary education in Moldova, developed and submitted to UNDP.	1 WDs	By 28 February 2025

Note: *Deliverables timeline can be amended for the purpose of the assignment.*

D. INSTITUTIONAL ARRANGEMENTS

The timeframe for the work of the Consultants is planned for the period **September 2025 – February 2026**.

The assignment shall be performed in close coordination with the UNDP Project Team, under the guidance and supervision of the Project Manager, who will approve contractors' deliverables.

For the duration of the assignment the Programme will provide the Consultants with the necessary information and materials for the fulfilment of the assignment. The Consultants will be responsible for the establishment and maintaining the good working relationships with all involved parties.

The Consultants will be responsible for carrying out the trainings in English, with translation in Romanian. *UNDP Moldova will be responsible for making all logistic and interpretation arrangements for trainings*. All communications and documentation related to the assignment required by UNDP will be in English, unless specifically agreed otherwise.

E. TRAVEL

All envisaged travel costs must be included in the financial proposal.

Two two-day in-person trainings to be carried out in Chisinau municipality consecutively for a total number of 50 people (25 people per group). The Consultants will be responsible to make all necessary arrangements regarding the travel and transportation means to Chisinau, including necessary permissions. The Consultants will have to cover the expenses with regard to the airfare and accommodation for the assignment in Chisinau on their own.

In general, UNDP should not accept travel costs exceeding those of an economy class ticket. Should the IC wish to travel on a higher class he/she should do so using their own resources.

F. FINANCIAL ARRANGEMENTS

Payments will be disbursed in two tranches, upon submission and validation of deliverables by the Project Manager, as per the following schedule:

Tranches
Tranche 1: Deliverables 1, 2, and 3
Tranche 2: Deliverable 4 and 5

G. QUALIFICATIONS REQUIREMENTS

For STEAM Leading Consultant (lower secondary education):

Academic Qualifications:

- University degree (or higher) in Educational Sciences, Mathematics, Physics, Chemistry, Geography, or other STEAM areas.

Experience and knowledge:

- At least 5 years of teaching experience in lower secondary education or in teacher training initial or continuous in relevant subjects - integrated/interdisciplinary teaching, active teaching methods, STEAM integrated approach.
- Experience in the development of teaching course materials, teacher guides or science subjects' educational resources proved by at least three relevant documents.
- Experience in designing STEAM oriented lesson plans or STEAM interdisciplinary scenarios proved by at least 5 relevant scenarios authored or co-authored in lower-secondary education.
- Knowledge of modern pedagogical approaches to teaching science subjects, including problem-solving, critical thinking, and technology integration proved by relevant educational materials, training certifications, written papers or articles.

Competencies:

- Strong organizational and project management skills to oversee the entire evaluation process, from planning to execution and reporting.
- Ability to perform and deliver expected results in a fast-paced working environment.
- Strong sense of initiative and ability to work independently.
- Strong written and communication skills, with analytic capacity and ability to identify relevant findings and prepare analytical documents in a clear and concise manner.
- Demonstrated interpersonal skills, as well as the ability to communicate effectively and build meaningful partnerships with all stakeholders.
- Fluency in English (verbal and written) is a must. Knowledge of Russian or Romanian is considered as an advantage.

Personal qualities:

- Responsibility, flexibility and punctuality, ability to meet deadlines and prioritize multiple tasks.
- Proven commitment to the core values of the United Nations, in particular respecting differences of culture, gender, religion, ethnicity, nationality, language, age, HIV status, disability, and sexual orientation, or other status.

For STEAM Consultant (upper secondary education):

Academic Qualifications:

- University degree (or higher) in Educational Sciences, Mathematics, Physics, Chemistry, Geography, or other STEAM areas.

Experience and knowledge:

- At least 3 years of teaching experience in upper secondary education or experience in teacher training initial or continuous in relevant subjects - integrated/interdisciplinary teaching, active teaching methods, STEAM integrated approach.
- Experience in the development of teaching course materials, teacher guides or other curricula documents in science subjects proved by at least two relevant documents.
- Experience in designing STEAM oriented lesson plan or STEAM integrated scenarios proved by at least 2 relevant plans and/or scenarios authored or co-authored in upper secondary education.
- Knowledge of modern pedagogical approaches to teaching science subjects, including problem-solving, critical thinking, and technology integration proved by relevant educational materials, training certifications, written papers or articles.

Competencies:

- Ability to perform and deliver expected results in a fast-paced working environment.
- Strong sense of initiative and ability to work independently.
- Strong written and communication skills, with analytic capacity and ability to identify relevant findings and prepare analytical documents in a clear and concise manner.
- Demonstrated interpersonal skills, as well as the ability to communicate effectively and build meaningful partnerships with all stakeholders.
- Fluency in Romanian (verbal and written) is a must. Strong knowledge of Russian is a must. Knowledge of English is considered as an advantage.

Personal qualities:

- Responsibility, flexibility and punctuality, ability to meet deadlines and prioritize multiple tasks.
- Proven commitment to the core values of the United Nations, in particular respecting differences of culture, gender, religion, ethnicity, nationality, language, age, HIV status, disability, and sexual orientation, or other status.

H. DOCUMENTS TO BE INCLUDED WHEN SUBMITTING THE PROPOSALS

Interested individual consultants must submit the following documents/information to demonstrate their qualifications:

- Signed and filled-in Offeror's letter to UNDP confirming interest and availability for the individual contractor (IC) assignment, incorporating Financial proposal in Annex 2 (in USD, specifying a total requested amount per working day, including all related costs, e.g. fees, phone calls, fuel, etc.). Annex 2 to the Offeror's letter, incorporating the Financial Proposal, shall be filled in mandatorily and includes the detailed breakdown of costs supporting the all-inclusive financial proposal;
- Proposal (Motivation Letter): explaining why they are the most suitable for the work including previous experience in similar Projects (please provide brief information on each of the above qualifications, item by item, including information, links/copies of documents for similar comprehensive studies);
- Duly updated CV with at least 3 references.

Important notice: The applicants who have the statute of Government Official / Public Servant prior to appointment will be asked to submit the following documentation:

- a no-objection letter in respect of the applicant received from the Government, and;
- the applicant is certified in writing by the Government to be on official leave without pay for the entire duration of the Individual Contract.

I. EVALUATION

Initially, individual consultants will be short-listed based on the following minimum qualification criteria:

STEAM Leading Consultant (lower secondary education):

- University degree (or higher) in Educational Sciences, Mathematics, Physics, Chemistry, Geography, or other STEAM areas.
- Experience in teaching integrated projects at lower secondary education, proved by at least 5 years of teaching experience in general education or experience in teacher training initial or continuous in relevant subjects - integrated/interdisciplinary teaching, active teaching methods, STEAM integrated approach.

and at least one of the following criteria:

- Experience in the development of teaching course materials, teacher guides, **STEAM oriented lesson plans/scenarios** or science subjects' educational resources proved by at least three relevant documents.

STEAM consultant (upper secondary education):

- University degree (or higher) in Educational Sciences, Mathematics, Physics, Chemistry, Geography, or other STEAM areas.
- Experience in the teaching integrated projects at upper-secondary education, proved by at least 2 years of teaching experience in general education or experience in teacher training initial or continuous in relevant subjects - integrated/interdisciplinary teaching, active teaching methods, STEAM integrated approach.

and at least one of the following criteria:

- Experience in the development of teaching course materials, teacher guides, **STEAM oriented lesson plans/scenarios** or science subjects' educational resources proved by at least two relevant documents.

The short-listed individual consultants will be further evaluated based on a Cumulative analysis.
The award of the contract will made to the individual consultant whose offer has been evaluated and determined as:

a) responsive/ compliant/ acceptable, and
b) having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation.

* **Technical Criteria weight** – 60% (150 pts) /
* **Financial Criteria weight** – 40% (100 pts).

The first three candidates who passed Technical Evaluation criteria with the best score shall be invited for an online interview and pass the cumulative analysis.
Only candidates obtaining a minimum of 210 points for the Technical Evaluation shall be considered for the Financial Evaluation.

STEAM Leading Consultant

Criteria	Scoring	Points
University degree (or higher) in Educational Sciences, Mathematics, Physics, Chemistry, Geography, or other STEAM areas.	*Bachelor's degree – 5 pts.* *Master's degree – 10 pts.*	10

At least 5 (five) years of experience in teacher training and development (pre-service and/or in-service).	*no – 0 pts;* *5 years of experience – 10 pts.* *each year – 10 pts, up to a maximum of 40 pts.*	40
Experience in the development of teaching course materials, teacher guides or science subjects' educational resources proved by at least two relevant documents.	*two documents – 30 pts.* *each additional document – 15 pts.* *up to a maximum of 60 pts.*	60
Experience in designing a STEAM oriented lesson plan or STEAM interdisciplinary scenario proved by at least 2 relevant scenarios in lower secondary education.	*no – 0 pts.* *two relevant scenarios – 30 pts.* *each additional scenario – 15 pts.* *up to a maximum 60 pts.*	60
Knowledge of modern pedagogical approaches to teaching science subjects, including problem-solving, critical thinking, and technology integration proved by relevant educational materials, training certifications, written papers or articles.	*no records – 0 pts.* *1 record – 10 pts;* *up to a maximum of 30 pts.*	30
Total Technical Scoring		**200**
Interview	• Demonstrated understanding of the subject matter, and of the role to be performed by the consultant *(none – 0 pts, limited – up to 10 pts, good – up to 20 pts, strong – up to 30 pts)* • Demonstrated understanding of the current challenges and needs of in-service teachers and managers professional development and vision of how to solve the challenges *(none – 0 pts, limited – up to 10 pts, good – up to 20 pts, strong – up to 30 pts)* • Demonstrated interpersonal and diplomatic skills, as well as the ability to communicate effectively with all stakeholders to present ideas clearly and effectively *(none – 0 pts, limited – up to 5 pts, good – up to 10 pts, strong – up to 15 pts)* • Strong sense of initiative and ability to work independently *(none – 0 pts, limited – up to 5 pts, good – up to 10 pts, strong – up to 15 pts)* • Strong knowledge of English and Romanian or Russian 5 pts each *(10 pts total)*	100
Total Interview Scoring		**100**
Maximum Total Technical Scoring		**300**

STEAM Consultant

Criteria	Scoring	Points
University degree (or higher) in Educational Sciences, Mathematics, Physics, Chemistry, Geography, or other STEAM areas.	*Bachelor's degree – 5 pts.* *Master's degree – 10 pts.*	10
At least 3 (three) years of experience in the field of teacher training and development (pre-service and/or in-service).	*no – 0 pts;* *3 years of experience – 10 pts.* *each year – 10 pts,* *up to a maximum of 40 pts.*	40
Experience in the development of teaching course materials, teacher guides or science subjects' educational resources proved by at least two relevant documents.	*two documents – 30 pts.* *each additional document – 15 pts.* *up to a maximum of 60 pts.*	60
Experience in designing a STEAM oriented lesson plan or STEAM interdisciplinary scenario proved by at least 2 relevant scenarios in upper secondary education.	*no – 0 pts.* *two relevant scenarios – 30 pts.* *each additional scenario – 15 pts.* *up to a maximum 60 pts.*	60
Knowledge of modern pedagogical approaches to teaching science subjects, including problem-solving, critical thinking, and technology integration proved by relevant educational materials, training certifications, written papers or articles.	*no records – 0 pts.* *1 record – 10 pts;* *up to a maximum of 30 pts.*	30
Total Technical Scoring		**200**
Interview	• Demonstrated understanding of the subject matter, and of the role to be performed by the consultant *(none – 0 pts, limited – up to 10 pts, good – up to 20 pts, strong – up to 30 pts)* • Demonstrated understanding of the current challenges and needs of in-service teachers and managers professional development and vision of how to solve the challenges *(none – 0 pts, limited – up to 10 pts, good – up to 20 pts, strong – up to 30 pts)* • Demonstrated interpersonal and diplomatic skills, as well as the ability to communicate effectively with all stakeholders to present ideas clearly and effectively *(none – 0 pts, limited – up to 5 pts, good – up to 10 pts, strong – up to 15 pts)* • Strong sense of initiative and ability to work independently *(none – 0 pts, limited – up to 5 pts, good – up to 10 pts, strong – up to 15 pts)* • Strong knowledge of English and Romanian or Russian languages – *5 pts each. (10 pts total)*	100
Total Interview Scoring		**100**
Maximum Total Technical Scoring		**300**

Financial	
Evaluation of submitted financial offers will be done based on the following formula: **S = Fmin / F * 200** **S –** score received on financial evaluation; **Fmin –** the lowest financial offer out of all the submitted offers qualified over the technical evaluation round; **F –** financial offer under consideration	**200**

Winning candidate The winning candidate will be the candidate who has accumulated the highest aggregated score (technical scoring + financial scoring).