**[Foster soil education across society](https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2022-soil-01-07;callCode=null;freeTextSearchKeyword=Soil;matchWholeText=true;typeCodes=1,2,8;statusCodes=31094501,31094502,31094503;programmePeriod=null;programCcm2Id=null;programDivisionCode=null;focusAreaCode=null;destination=null;mission=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=sortStatus;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState)**

**HORIZON-MISS-2022-SOIL-01-07**

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| **Programme** | Horizon Europe (HORIZON) |
| **Type of action** | HORIZON Research and Innovation Actions |
| **Opening date** | 12 May 2022 |
| **Status** | **Open for submission** |
| **Deadline model** | single-stage |
| **Deadline date** | **27 September 2022** 17:00:00 Brussels time |

**Budget per project:** **6 mil. €** (The total indicative budget for the topic is EUR 6.00 mil.)

**ExpectedOutcome:**

This topic contributes to the implementation of the Mission ‘A Soil Deal for Europe’[[1]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn1), in particular to its specific objective 8 “Increase soil literacy in society across Member States”. It supports the objectives of the European Green Deal, the European Climate Pact[[2]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn2) and the EU Soil Strategy for 2030[[3]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn3). In addition, results obtained under this topic should contribute to the objectives of the European Education Area[[4]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn4), the Education for Climate Coalition[[5]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn5) and improve the European sustainability competence framework (GreenComp) to prepare people to face the challenges of a changing climate world.

Project results should contribute to all of the following outcomes:

* teaching programmes and targeted communication, education and engagement materials on soil are more widely available in numerous European languages;
* higher uptake and diffusion of good practices and hands-on activities related to soil education across the EU and Associated Countries;
* soil literacy is more firmly embedded in educational curricula at all levels and supports behavioural change and the adoption of sustainable practices both individually and collectively based on a better understanding of the vital importance of soils for human life and planetary health;
* increased awareness of the importance of soil and its functions, as well as of the Mission objectives, amongst pupils, students and professionals across Europe.

 **Scope:**

As highlighted in the EU Soil Strategy for 2030 and in the implementation plan of Mission ‘A Soil Deal for Europe’, soil is a scarce and non-renewable resource which is vital to ensure life on Earth. However, the value of soil is not fully recognised in society. Individuals are often unaware of the relevance of soil in their daily lives and of the pressures that human activities pose on soil health. To improve society’s understanding of soils and incentivise behavioural change, there is a need to embed soil related subjects more firmly into the various levels of education and link enhanced information on soils with people’s values. Activities under this topic will foster soil education in schools, universities and professional education in EU Member States and Associated Countries.

Projects are expected to:

* Provide an overview of the current level of soil related knowledge (including on soils’ vital functions) and the educational needs amongst pupils (primary and secondary levels), students (tertiary level), and society overall across the EU and Associated Countries.
* Develop courses/modules for soil education in primary and secondary schools as well as in universities (building particularly on EJP Soil[[6]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn6) relevant results) and in professional/technical training by developing and testing pedagogical techniques for effective knowledge flows. Work should make use a variety of learning tools (including e-learning content[[7]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn7)) and carry-out activities targeted at different age groups and types of learning.
* Identify, further develop, and demonstrate/pilot exemplary sustainable practices on soil related educational settings (e.g. vegetable gardens, composting activities, etc.), in rural, peri-urban and urban areas. Examples identified should be geographically balanced and draw on experiences from a wide number of EU Member States and Associated Countries, ideally targeting at least half the number of EU Member States.
* Disseminate and make widely available educational and training material gathered and developed throughout the project. Information and material shall be oriented to different target groups and available in numerous European languages, making use of advanced tools, channels and network for education and communication (e.g. School Education Gateway, EU Academy, Education for Climate platform). In addition, communication campaigns should be implemented to give visibility to the project, the Mission objectives and the importance of soil and its manifold functions.
* Enhance knowledge exchange and peer-to-peer learning amongst the different target groups (e.g. school pupils and university students including beneficiaries of relevant Marie Skłodowska-Curie Actions[[8]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn8), teachers, professors, trainers, and organisations) through existing networks (e.g. EIT graduates[[9]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn9)) and empower them to act on fostering strong links with the Education for Climate Coalition to co-create concrete education solutions;
* Engage with public authorities and institutions responsible for primary, secondary and tertiary education on the findings resulting from the work undertaken in view of promoting their uptake. This should include the preparation of targeted recommendations for policy makers and the organisation of events such as a conference at EU level and a series of national conferences to exchange on the results.

Proposals should apply a **multi-actor approach where soil experts, behavioural scientists, specialists in pedagogy, in education, and in communication are working closely together with teachers, professors and students in synergy with the Education for Climate Coalition and relevant initiatives of National Coalitions.** In addition, consortia should tap into the expertise of organisations and institutions with experience in citizen science and in running science shops.

**Eligible countries:**

To be eligible for funding, applicants must be established in one of the eligible countries, i.e.:

– the Member States of the European Union, including their outermost regions;

– the Overseas Countries and Territories (OCTs) linked to the Member States;

– eligible non-EU countries: - countries associated to Horizon Europe;

- low- and middle-income countries

**Eligible partners:**

Proposals must apply the “**multi-actor approach**”, thus ensure a balanced mix of actors from various sectors and include **expertise from behavioural and social sciences**.

**Affiliated entities** — Affiliated entities are eligible for funding if they are established in one of the countries listed above.

**EU bodies** — Legal entities created under EU law may also be eligible to receive funding, unless their basic act states otherwise.

**International organisations** — International European research organisations are eligible to receive funding. Unless their participation is considered essential for implementing the action by the granting authority, other international organisations are not eligible to receive funding. International organisations with headquarters in a Member State or Associated Country are eligible to receive funding for ‘Training and mobility’ actions and when provided for in the specific call conditions

**CONCEPT NOTE (UPJS):**

**Soil ecology for pupils and students:**

Environmental education and training is a lifelong process that aims to adopt environmental principles and positively influence society as a whole. The process should be targeted at each social and age group. It is clear that in terms of educational potential, the most important in this case is the school system, which consists of preschool facilities, primary, secondary and higher education, universities of the third age, educational institutions run by universities, methodological centers, institutes of further education, etc.

Our research team from Department of Zoology can contribute to expected outcomes by creating various type of communication and education materials on soil for pupils and students:

The first main goal of the project will be innovate educational programs for primary, secondary and tertiary education in the field of ecology, soil biology - specific scientific attitudes that will lead students to conscious use of knowledge about the soil environment. For instance make online/classic questionnares with pupils (primary and secondary levels), students (tertiary level), and society and define current level of knowledge about soil, which also helps to find out pupils´ and students' interest in the soil environment.

Based on the project main objective we want to arouse pupils 'and students' interest in nature, concretely to soil environment, and to teach them how to explore and use the soil:

* + e.g. create vegetable gardens for children, greenhouses at schools - where they will take care of plants, animals living in the soil
	+ composting activities (as components of learning process about soils’ vital functions) among which students will have ablitity to exchange the experiences, but also with ability to consult it with proffesionals from various organisations (researchers, policy makers) during workshops and conferences, courses focusing at soil education.
	+ Make workshops also with cooperation with local language schools to reach a wider range of target groups and to maintain availability in different languages.
	+ Soil experts in cooperation with filmmakers they will shoot “ENVIROFILM” for the pupils, about the function of the soil, what it means to us, what we can find in it, about global warming.
	+ One of the other tool, we want to contribute to raising environmental awareness is the publication of **professional magazines, posters and information brochures** - not only printed but also online. (**creation of platform, interactive, digitalized form**)
	+ in the classrooms, pupils can procure glass containers/aquaria with soil to monitor the life of the earthworms - digging into the soil, moving in the soil at the edge of the glass walls, creating corridors, drawing food into the soil (eg leaf fragments). This makes it possible to recognize their importance in aerating the soil and making humus.

Another ambition will be to develop **extracurricular environmental education** in the countries participating in the project, in cooperation with leisure centers, museums, galleries, environmental education centers, some state (budgetary and contributory) organizations in the environment, culture and health care, educational facilities in the Ministry of the Interior, branches of foreign universities and educational institutions, corporate training facilities, etc.

Biology and geography lessons, possibly ecological or EV, can be organized in science exhibitions. Exhibitions with conservation themes, discussions, lectures, competitions, conservation camps, field trips, etc.