



LOESS

LITERACY BOOST THROUGH AN OPERATIONAL EDUCATIONAL
ECOSYSTEM OF SOCIETAL ACTORS ON SOIL HEALTH



LOESS CO-DESIGN WORKSHOP 1: CREATING TEACHING RESOURCES ON SOIL EDUCATION

14 May 2024
(16:00–18:30 CEST)

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1. INTRODUCTION

The International co-design workshop **“Creating teaching resources on soil education”** invites participants – e.g., teachers, teachers’ trainers, professionals, researchers, experts on soil, etc. – to discuss on teaching materials suitable to foster soil education in secondary school (i.e., students aged 12 to 18+), specifically learning scenarios related to soil and its ecosystem services.

The workshop offers the opportunity to share ideas, experiences, and reflections in an informal, facilitated conversation. The aim of this discussion is to identify suitable topics for soil education and effective ways to conduct educational activities on soil in secondary school.

The workshop is divided into two sessions. **Session 1** will examine suitable topics for cross-subjects education on soil, considering the need for hands-on outdoor activities as well as students’ social-emotional engagement. **Session 2** will discuss the potential challenges to consider when designing and implementing learning scenarios on soil as well as practical solutions. Join us in this vital conversation as we explore ways to foster a deeper connection to nature among youngsters.

The Workshop is organized by **LOESS**¹, a Horizon Europe project under one of the EU Mission areas – **A Soil Deal for Europe**². The goal of LOESS is to raise awareness on the importance of soil and its functions and to increase soil literacy across Europe. All in all, LOESS will boost soil literacy by building an educational ecosystem that enhances capacity building, knowledge exchange and peer-to-peer learning.

2. CURRENT STATE OF SOIL EDUCATION

Soil knowledge and health hold a crucial role within the **European Green Deal**³, and they are also important for reaching the **long-term vision for the EU’s rural areas**⁴ as well as the objectives of the **EU Soil Strategy 2030**⁵. In the realm of education, the integration of soil into curricula is crucial, offering students immersive experiences that inspire curiosity about nature and foster a sense of environmental awareness.

While soil education varies across European countries due to differences in educational systems and priorities, there is a general trend towards integrating soil-related topics into school curricula. There is also a “need for educational programmes that create awareness of the role of soil in the life of individuals, communities and European society as a whole” (van

¹ LOESS – Literacy boost through an Operational Educational Ecosystem of Societal actors on Soil health: <https://loess-project.eu/>

² European Commission – A Soil Deal for Europe: https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/soil-deal-europe_en

³ European Commission – A European Green Deal: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en.

⁴ European Commission – Long-term vision for the EU’s rural areas up to 2040: https://rural-vision.europa.eu/index_en

⁵ European Commission – Soil Strategy for 2030: https://environment.ec.europa.eu/topics/soil-and-land/soil-strategy_en



der Putten, et al., 2018: 28). Despite progress in certain countries, achieving comprehensive soil education across Europe faces challenges. One significant issue is the lack of consistent approaches to teaching soil science across different regions and educational systems. Moreover, the level of emphasis placed on soil education varies, with some regions prioritizing it more than others. This inconsistency highlights the need for increased collaboration and coordination at the European level to promote soil literacy and awareness among students and educators.

LOESS aims at overcoming these obstacles by proposing a set of innovative teaching modules co-designed with the support of different stakeholders across Europe. Hence, in this international co-design workshop, we will exchange ideas, trying to identify suitable topics and best practices for the creation and implementation of successful teaching resources on soil. The discussions taking place will be analysed and summarised into a document – deliverable D3.6 under Work Package 3 of LOESS – which will lay the ground for the creation of four learning scenarios for secondary education.

3. AGENDA

Time	Session
16:00 – 16:10	Welcome, tour de table and brief presentation on LOESS
16:10 – 17:10	Session 1: Topics to tackle in soil education for secondary school. Introduction (5-10 min) Discussion by all participants
17:10 – 17:20	Break
17:20 – 18:20	Session 2: Challenges and solutions to creating and implementing learning scenarios on soil education for secondary school. Introduction (5-10 min) Discussion by all participants
18:20 – 18:30	Summary by EUN

4. QUESTIONS

Session 1: Topics to tackle in soil education for secondary school.

1. What are the most suitable topics for secondary school to teach and learn about soil and its ecosystem services?
2. How can suitable topics on soil education be integrated into an interdisciplinary pedagogical approach – including geography, physics, biology, chemistry, as well as mathematics – clearly linked to national curricula?
3. How can educational resources be designed to emotionally engage students in soil education?
4. Are some topics more suitable for younger students (e.g., those aged 12-14), while others are more applicable to older ones (e.g., those 15 to 18 years of age)?



Session 2: Challenges and solutions to creating and implementing learning scenarios related to soil.

1. What are the main challenges educators face when designing and implementing teaching resources related to soil education? How can these challenges be addressed?
2. Explore strategies for incorporating experiential learning opportunities, such as outdoor field trips, hands-on soil sampling activities, and citizen science projects, into soil education resources to enhance students' interest and understanding.
3. Explore strategies to design teaching resources that emotionally engage students into soil education.
4. Discuss the role of educational technology and digital tools in overcoming barriers to soil education, such as geographic constraints, resource limitations, and the need for interactive and engaging learning experiences.

5. REFERENCES

van der Putten, et al., (2018). Opportunities for soil sustainability in Europe. (EASAC policy report; No. 36).

