



Soil Education & societal change

Mini Symposium Curiosoil part 1 & 2



ESHA, Harry te Riele / Judit Horgas

we *know* that head teachers
are already incredibly busy



And so are your staff





As are their pupil's parents



That said

Here's the **next big thing**
on the EU's sustainability agenda



And it's you, education, who are being asked
to stand at the very centre of introducing it



More precise: to raise *soil literacy* in each
and every country across Europe
in the years to come





So, against the background of the five EU Missions

- solutions for our greatest challenges -

A Soil Deal for Europe

#MissionSoil

Welcome to Curiosoil

Workshops Rome



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Education and Research EALR
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This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI).



*Please help us foster soil education
across Italy..*



..and across

Austria
Belgium
Croatia
Denmark
Finland
France
Germany
Italy
the Netherlands
Norway
Portugal
Romania
Slovenia
Spain
Switzerland
Turkey
Ukraine

...

We've analysed seventeen countries,
but first..



Q0

who are you all?



Q2



What do you think, is *this* sound?

*movement & feeding noises from insects in an
extensively managed Alpine meadow,
Valais, Switzerland*



Q4

And this? 



*it's cadmium-contaminated soil in the former
sewage fields of Berlin. Hardly faunal activity.
Just water seeping through soil pores.*



■ ■

And this is how ... actually communicate



Q1

how do you instinctively respond when change is due?

optimising by nature
feedback-driven

explorative nature
feed-forward

my *instinctive* response when change is due



people-attached

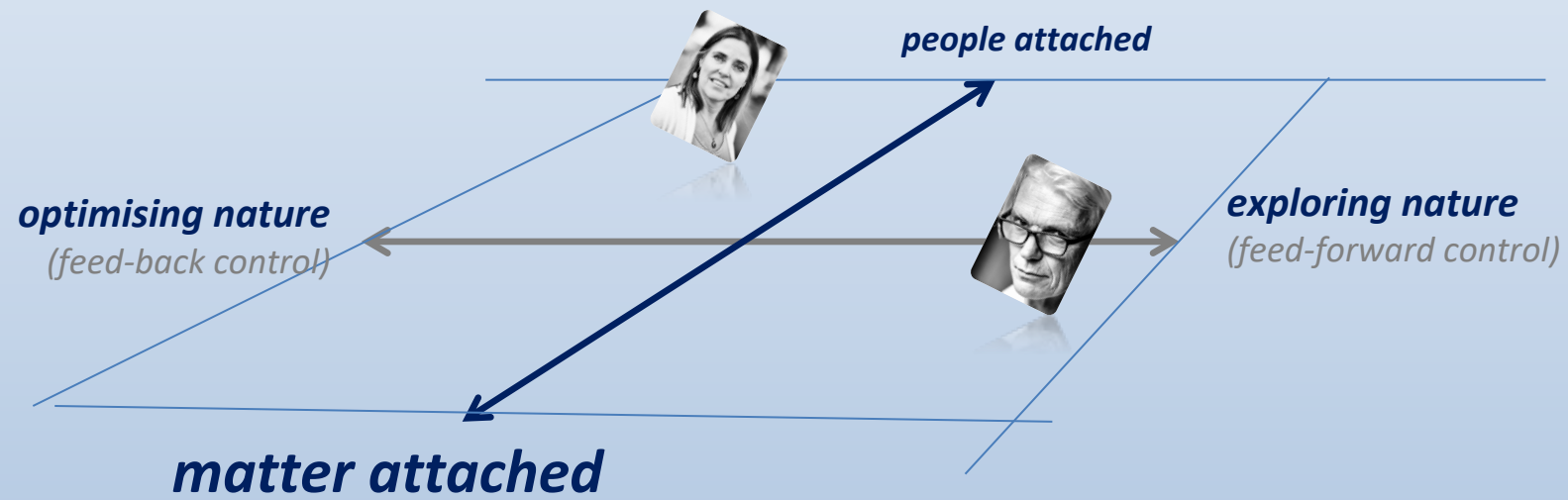
optimising by nature
feedback-driven

explorative nature
feed-forward

matter-attached



Peter Robertson (NL/US): *always change a winning team*



A new kid on the block is about to stir things up in European education — **soil literacy**

Soil is about the foundations of biodiversity
the EU turning up the pressure
parents who'll gladly embrace the novelty
others who'll come angry to your offices
Each country to construct its own narrative —ancient histories of waters and soils and stones
optimism 1980's
frustration and scars 1990's/2000's
limiting the paths from here

What is needed from you as a school leader? Set things in motion
help integrate soil health in pre-primary, primary, secondary and higher education, lifelong learning

bring your teams at ease the moment soil comes knocking on all our doors:

Alert your staff to what it's all about

Help test education tools **and integrate** them into lesson plans – often horizontally

Help teachers **understand** why children and those around them might react the way they will — and **how to keep learning dialogues** productive rather than tumultuous

Do come on board please

Soil health needs you to help set this in motion



Q3

So, what do you think, soil actually *is*?





“It is up to where the rain water gets”



“It’s the earth’s crust layer that is influenced by climate, weather, surface waters and bio-organisms. In rocky areas it can be as thin as a few centimetres. In tropical forests 12 metres is not uncommon. The very depth where soil becomes geology is debated”

“It can take a 1000 years to get a layer of fertile soil”

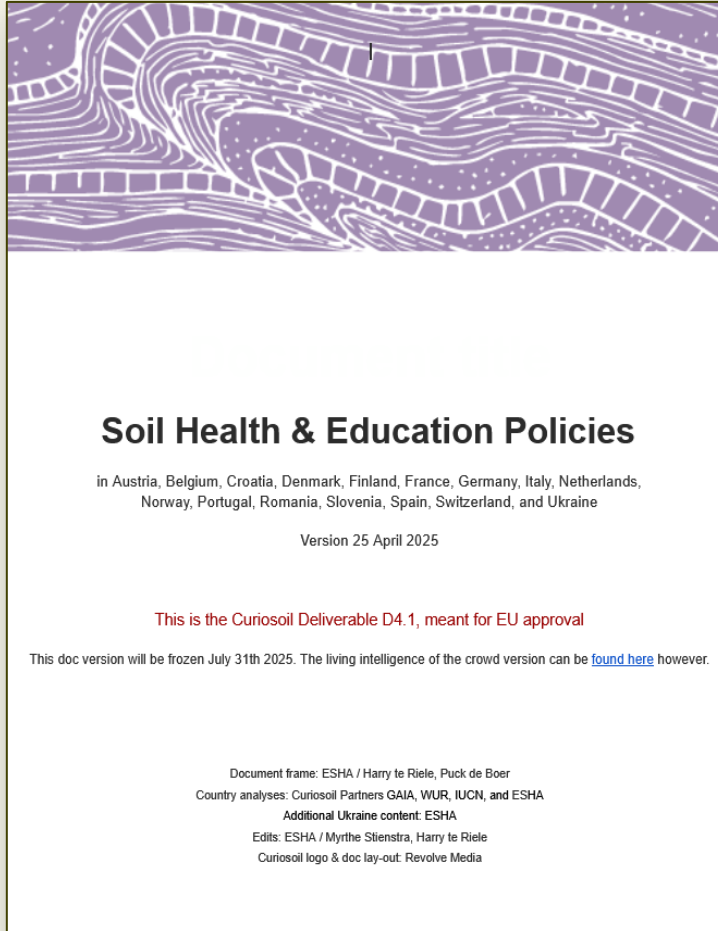
The Why



60% of European soils face degradation

healthy soil | healthy planet | healthy people





Soil Health & Education Policies

in Austria, Belgium, Croatia, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Portugal, Romania, Slovenia, Spain, Switzerland, and Ukraine

Version 25 April 2025

This is the Curiosoil Deliverable D4.1, meant for EU approval

This doc version will be frozen July 31th 2025. The living intelligence of the crowd version can be [found here](#) however.

Document frame: ESHA / Harry te Riele, Puck de Boer
Country analyses: Curiosoil Partners GAIA, WUR, IUCN, and ESHA
Additional Ukraine content: ESHA
Edits: ESHA / Myrthe Stienstra, Harry te Riele
Curiosoil logo & doc lay-out: Revolve Media

Austria

Belgium

Croatia

Denmark

Finland

France

Germany

Italy

Netherlands

Norway

Portugal

Romania

Slovenia

Spain

Switzerland

Turkey

Ukraine

...

We've composed 17 narratives about

- how each country educates
- soil awareness across education types
- landmarks in soil history
- one-issue or well-balanced perspectives
- policy-practice-budget gap / theory-practice-gap
- geographic and stakeholder specificity
- attitude to change
- soil literacy dynamics

we're starting national conversations
we'll hold national conferences



we're experimenting



(Copilot) "Generate a picture of a wise Croatian wine farmer who teaches 15 secondary school students in Dubrovnik on soil health"



Lexie

we address competences

Attitudes



Behaviours



Knowledge



pupils | students | teachers | school leaders |
professional coaches | policy makers | architects | ...

17 Communities of Practice

Get Involved

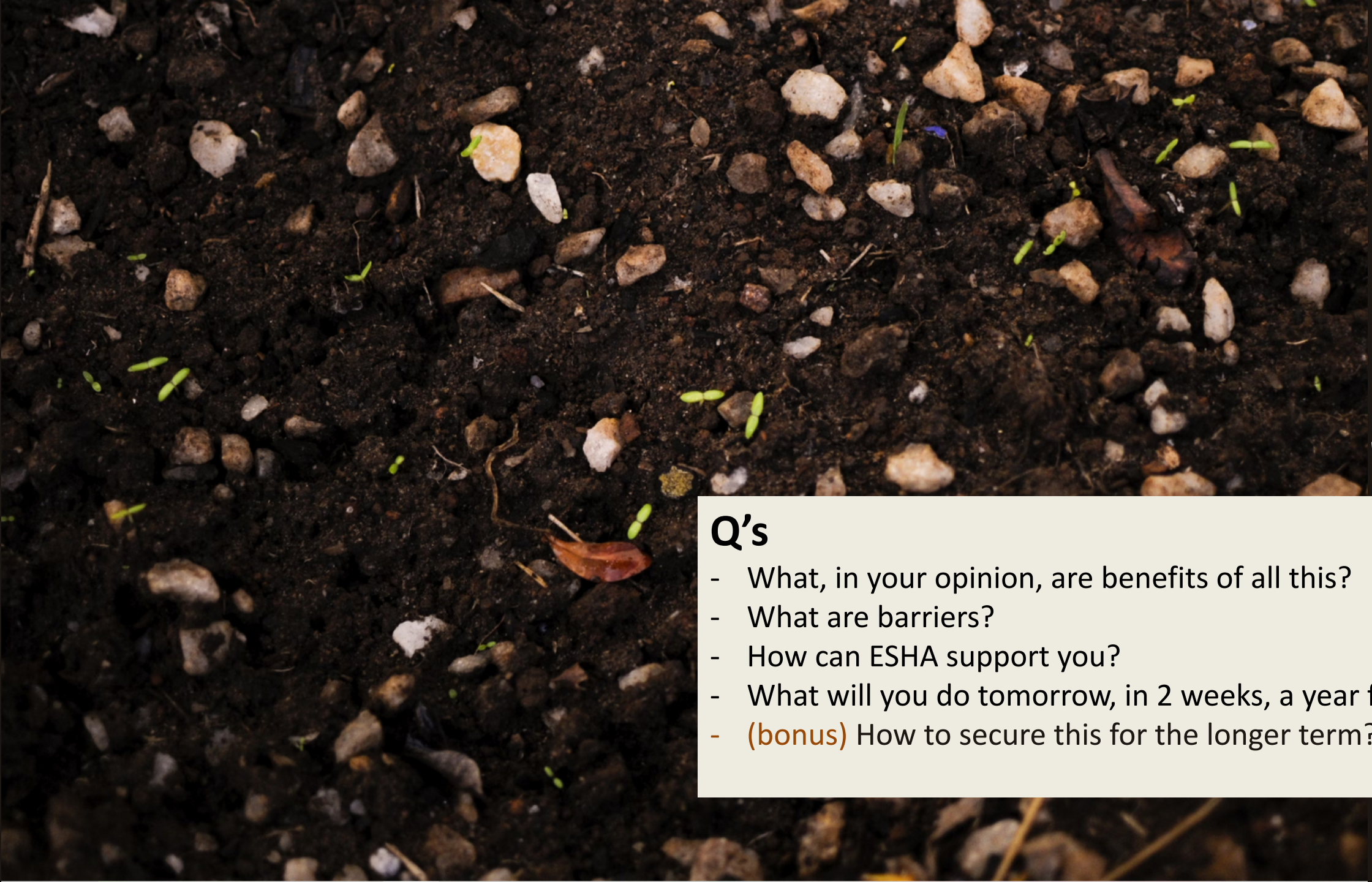
online meetings until Feb 2028

Join the **CURIOSOIL**
Community of Practice



A screenshot of the CURIOSOIL website. The header includes the CURIOSOIL logo and navigation links: ABOUT, OUR WORK, COMMUNITY OF PRACTICE, and NEWS & EVENTS. Below the header, there is a section titled "Download PDF" with the text "achieve common objectives. The CURIOSOIL CoP focuses on seventeen European countries." The main content area features a large orange map of Europe with 17 countries highlighted. To the left of the map, the text "17 countries with their CoP Leaders" is displayed. The highlighted countries on the map are: Norway, Denmark, Finland, Netherlands, Belgium, Germany, Austria, Ukraine, Luxembourg, Switzerland, Slovenia, Romania, France, Croatia, Italy, Portugal, and Spain. Turkey is also visible on the map but not highlighted.

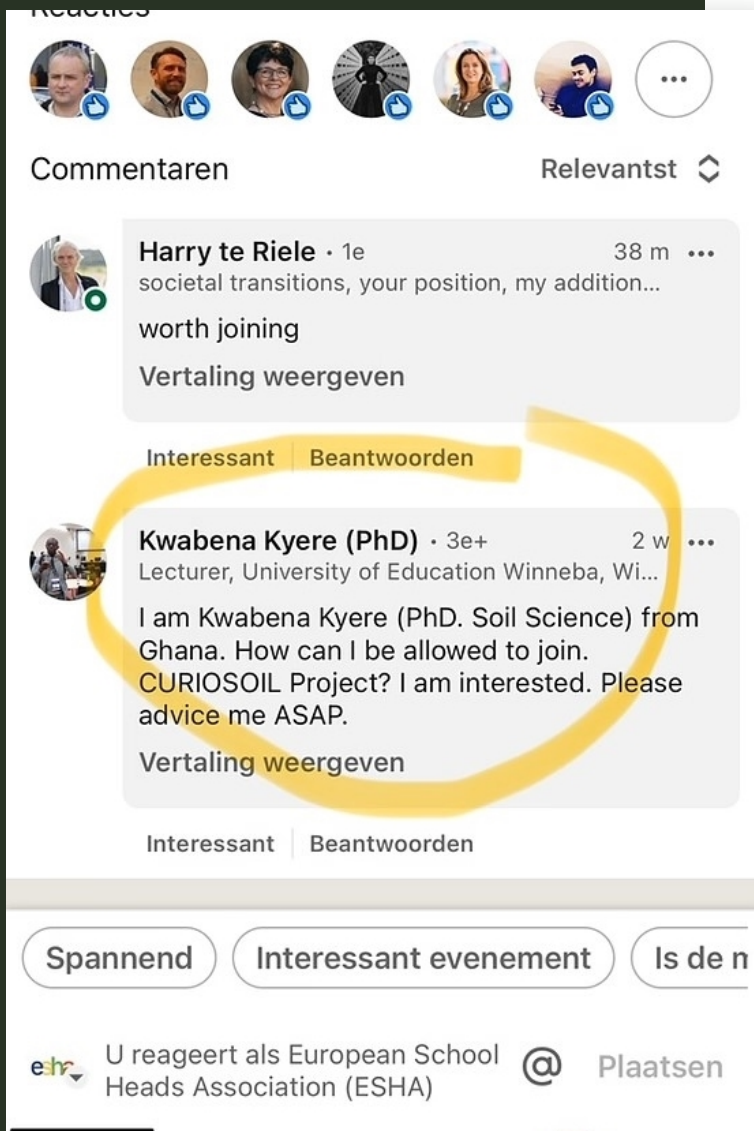




World café

Q's

- What, in your opinion, are benefits of all this?
- What are barriers?
- How can ESHA support you?
- What will you do tomorrow, in 2 weeks, a year from now?
- (bonus) How to secure this for the longer term??



ESHA

Wageningen UR

Revolve

IUCN

Ecolise

Nibio

ZHfK

GAIA 8

ESCI

BOKU





curiosoil.eu



Curiosoil home



Curiosoil 17 country analyses



Curiosoil videos



Curiosoil soil sound bank



Curiosoil events & newsletter



Curiosoil countries and their soil (health) education



A soil deal for Europe #missionsoil

“1024 organisations currently involved in Mission Soil-funded projects”

Express your interest



- Wish to hear more?
- Love participate in piloting our edu tools?
- Pls yr name, position, country, school/org, email



Soil Education & societal change

Mini Symposium Curiosoil part 2

Workshop reflection survey round 2 - Mini Symposium Part 1: Curiosoil

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ESHA, Harry te Riele / Judit Horgas

Thanks for your attention and precious time

*Did I tell you that at least 60% of European
soils is in a worrying state?
Which makes it worth doing?*



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A warm welcome
to our new arrivals



Soil Education & societal change

Mini Symposium Curiosoil part 1 & 2



ESHA, Harry te Riele / Judit Horgas

a short recap



“It is up to where the rain water gets”

short recap (2)

The Why



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healthy soil | healthy planet | healthy people



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short recap (4)



curiosoil.eu



Curiosoil home



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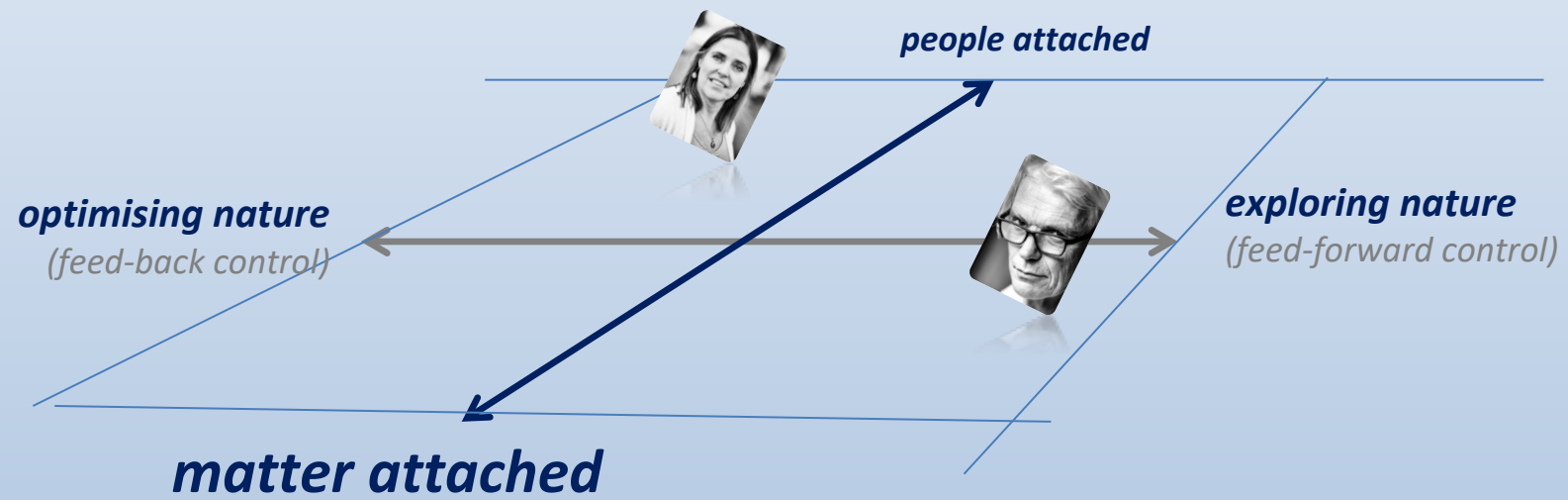
Curiosoil countries and their soil (health) education



A soil deal for Europe #missionsoil

“1024 organisations currently involved in Mission Soil-funded projects”

short recap (5)





what emerged in part 1



PROTECT



OBSERVE



PLANT



EXPLAIN



ORGANISE



LIVE



Thanks for your attention and precious time

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Workshop reflection survey round 3 - Mini Symposium Part 2: Curiosoil

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ESHA, Harry te Riele / Judit Horgas

Tomorrow, let's talk about Italy

CURIOSOIL





Soil Education & societal change

Let's talk about Italy



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Welcome to Curiosoil

Soil Education and Societal Change
ESHA2025 Rome 31 Oct



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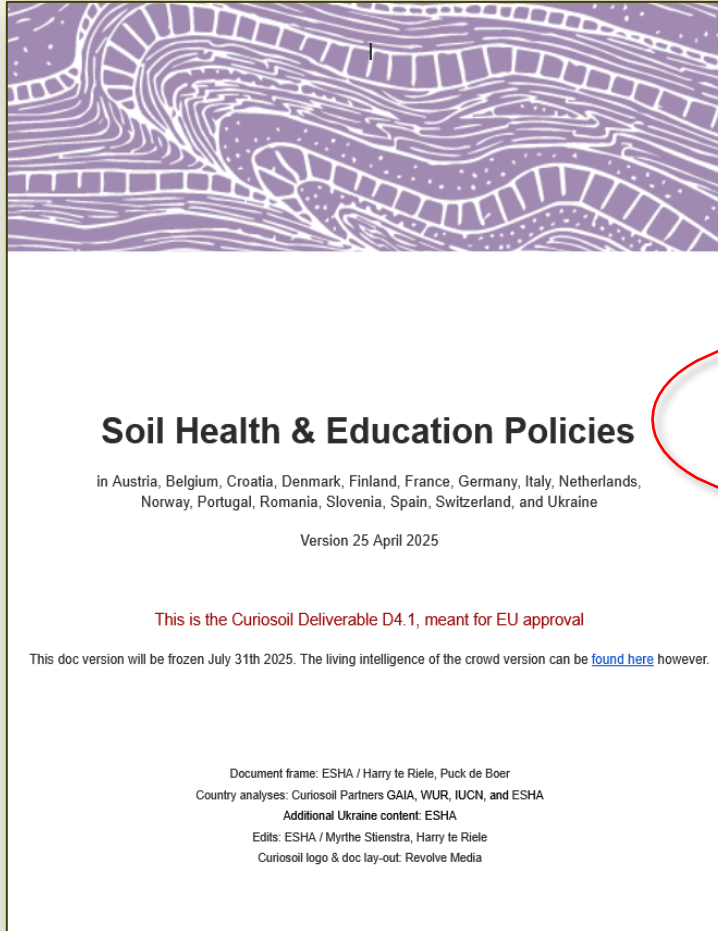
*Please help us foster soil education
across Europe*



Q0

who are you all?





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Croatia
Denmark
Finland
France
Germany
Italy
Netherlands
Norway
Portugal
Romania
Slovenia
Spain
Switzerland
Turkey
Ukraine
...

We've composed 17 narratives about

- how the country educates
- soil awareness across education types
- landmarks in soil history
- balanced perspectives?
- policy-practice-budget / theory-practice gaps?
- differentiate regions, stakeholders?
- attitude to change?
- recent soil literacy dynamics?
- **policy recommendations**

Now we're starting national conversations and hold national conferences



Let's talk about Italy





“It is up to where the rain water gets”



“It’s the earth’s crust layer that is influenced by climate, weather, surface waters and bio-organisms. In rocky areas it can be as thin as a few centimetres. In tropical forests 12 metres is not uncommon. The very depth where soil becomes geology is debated”

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■ ■

And this is how ... actually communicate



The Why



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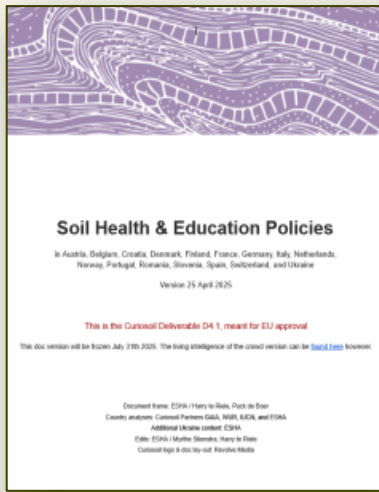
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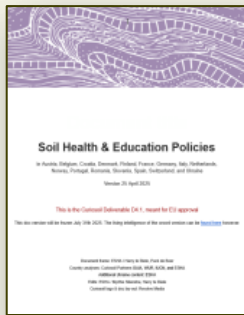
Method

Initial analysis by Gaia Education:
interviewed teachers
tracked their referrals
prompted AI to indicate black spots
composed text, summarised result

Review Italian focus group: Apr 2025
Update Italy chapter: 8 Aug 2025

Summary





Method

Initial analysis by Gaia Education
Data gathering methods:
interviewing teachers
tracking their referrals
prompting AI to indicate black spots
composing tekst
summarising the result

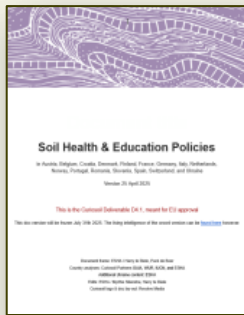
Review by Italian focus group on
2 April 2025

Last update chapter: 8 August 2025



Summary

“Education in Italy is structured under the principles of subsidiarity and autonomy, with both national and regional responsibilities in managing education. Although Italy has made strides in integrating soil health into educational policies, aligning with EU sustainability and environmental objectives, soil education remains a fragmented issue across the educational system. The national focus group even expresses a strong disagreement with any optimistic portrayal of soil education in Italy, stating that, in reality, soil is not a priority in the education system. As some members emphasise, although it appears in official curricula, soil education is nearly absent from primary, secondary, and even university teaching. Policies exist on paper but are not implemented in practice. Soil is often overshadowed by other topics (e.g., climate change, food systems) without proper interdisciplinary integration. Universities offer few courses on soil, and even these are not influential in shaping policy or public awareness. The Ministry of Agriculture and other institutions do not prioritise soil in their agendas. Teachers lack training, and schools lack resources to teach soil-related topics effectively.”



Method

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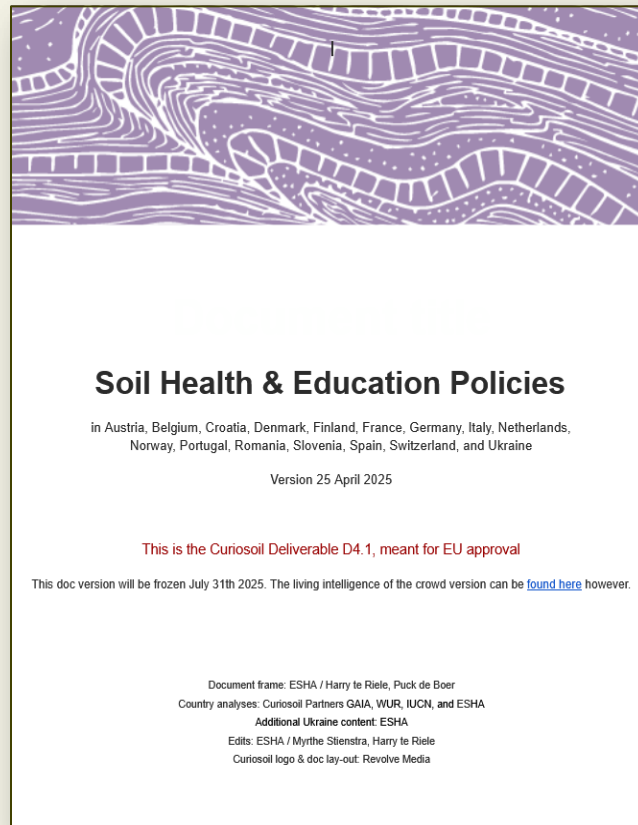
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Last update chapter: 8 August 2025



Summary (reprise)

“Soil education in Italy is theoretically advancing, but the practical application and integration of soil knowledge across educational levels remain inconsistent. While Italy’s policies align with EU objectives, **there is a need for more cohesive, interdisciplinary approaches to soil education, better teacher training, and adequate resources.** The existing regional initiatives and university programs are crucial, but **a unified, national effort could significantly improve Italy’s soil literacy** and sustainable soil management practices in the long term.”



Good practices

- **SoilHub Project:** A national initiative that provides research tools and sustainable soil management strategies to students and researchers.
- **Emilia-Romagna Region:** collaborates with local schools through ANBI and ARPAE, offering soil conservation activities and practical learning experiences.
- **Piedmont Region:** The proGInreg Project has established urban farming educational programs using green spaces and school gardens to teach students about soil health and sustainable practices.
- **University of Palermo:** Through EJP SOIL, hosts a Summer School on sustainable agriculture and soil management, preparing professionals to tackle soil health challenges.”

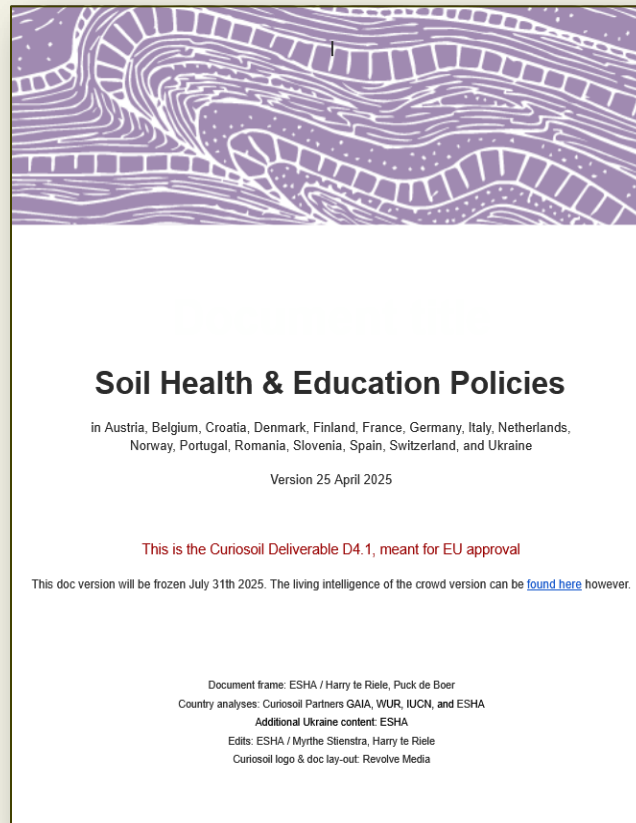
Current Policy Recommendations

1. Strengthening Programs: Italy has supported initiatives such as the SoilHub Project, which promotes climate-smart sustainable agricultural practices and soil management. This project encourages collaboration between schools, universities, and research bodies to develop educational materials and programs focused on soil health.

2. Integration into Curricula: Schools are encouraged to introduce concepts related to soil conservation and sustainable management. This includes a variety of activities, ranging from classroom lessons to practical fieldwork, helping students understand the importance of soil as a vital natural resource.

3. Public Engagement: As part of the International Decade of Soils (2015-2024), Italy is aligning with global goals to improve public understanding of soil issues. The integration of soil sciences into broader environmental education aims to foster an informed public that values soil preservation for environmental sustainability.

4. Higher Education/Research: Universities, such as those in Padova, Bologna, and Milan, are instrumental in offering specialised programs that educate students on sustainable agriculture, soil management, and related fields. These institutions also play a role in training professionals who will contribute to soil conservation efforts across Italy.”



Thanks for your attention

and precious time

thanks for talking about Italy



Express your interest



- Wish to hear more?
- Love participate in piloting our edu tools?
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Soil Education & societal change

Workshop reflection survey round 4 - Curiosoil: Soil Education and Societal Change

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