

From Soil Monitoring to Remediation

Contributions and Limitations of the EU Soil Monitoring Law

Session: Regulatory framework - Characterisation - Risk assessment

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The Soil Monitoring Directive at a Glance

Objective: to achieve healthy soils across the entire EU by 2050.

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DIRECTIVE (EU) 2025/2360 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL		
of 12 November 2025		
on soil monitoring and resilience		
(Soil Monitoring Law)		

1

Monitoring and assessing soil health

2

Harmonized Methodology

3

Managing contaminated sites

Transposition by 17 Dec 2028

From Text to Practice: A Gap to Bridge

Passing a directive in Brussels does not, by itself, guarantee it works on the ground

Rule Written

The directive is adopted in Brussels



Legal Tools

Mechanisms to put the rule into force



Rule Lived

What is felt and done on the ground

⇒ *The gap between what is voted and what is lived can be considerable.*

⇒ ***When the EU measures its soils, does it oblige anyone to protect them?***

1. A classic problem in EU law: why environmental directives often fall short in practice ?

❖ A weakness inherent to directives

EU instruments (Art. 288 TFEU): a directive is more fragile than a regulation

Regulation

- Directly applicable
- Uniform across all Member States
- Binding the moment it enters into force

Directive

- Binding only as to the result
- States choose the form & means
- Requires national transposition

❖ The Risks of Transposition

Effectiveness depends on each Member State adopting an intermediate national law

Late

Transposition arrives well past the deadline

Minimal

Only the bare minimum is transposed

Empty

Formally compliant, practically hollow



Article 5(3) TEU: principle of subsidiarity (environment = shared competence)

= These factors limit the harmonization objective originally set out in the directives

2. Binding (mandatory) ≠ Constraining (stringent)

Two words that do not mean the same thing for a lawyer

The Directive is binding

LEGAL FORCE

a State that ignores the rule breaches EU law

THE DIRECTIVE

all of its provisions are binding

The provisions are not constraining

PRECISION

A clear result, a deadline, a threshold: checkable and enforceable

THE DIRECTIVE

very unequally constraining

⇒ **Europe measures together; each State decides for itself.**

⇒ **Once again, all these factors limit the harmonization objective.**

3. Features Specific to Soil Itself

Two features that make soil harder to regulate than air, water or biodiversity

	AIR · WATER · BIODIVERSITY	SOIL	WHAT IT MEANS
1 A largely private good	Air & water: more obviously shared goods, already well covered by law	Belongs, in everyday use, to farmers, landowners, developers	Public policy on soil is harder to get accepted
2 No established legal & social culture - yet	Water & biodiversity: already have a recognised legal and social culture	Has no such culture built up in advance	The text lacks a social ground already prepared to receive it



I. Monitoring: measuring soil without (yet) protecting it

❖ The Tools Built into the Directive

The directive draws on techniques already tested by EU environmental law

Three Classic Tools of Environmental Law

1 A Common Language

Harmonized soil health indicators and a shared definition of “good soil condition”

2 A Harmonized Framework

One common framework for monitoring, shared across all 27 Member States

3 Transparency

Citizens, researchers, and local authorities can access reliable data

❖ An obligation to know, not an obligation to act.

The measure is not the norm: three gaps between measuring and obliging

WHAT THE DIRECTIVE MEASURES

Soil health

descriptors, target values, alert thresholds

≠

Soil life

eDNA, DNA of bacteria & fungi (other descriptors optional)

≠

Effects

carbon loss, erosion, compaction, sealing

≠

WHAT IT OBLIGES STATES TO DO

An obligation to know, not to act

2050 goal only “aspirational” (rec. 26, 33, 35)

No threshold for biodiversity

eDNA: who is there, not how the soil works

Causes left to other policies

It measures effects, not the causes



II. Remediation: managing risk without (necessarily) restoring soil health

❖ A genuine contribution: dated obligations and a risk-based approach

Constraining at last: Contaminated Sites



17 DEC

2029

risk-based approach & public online register (Art. 13, 17)

17 DEC

2035

all potentially contaminated sites identified (Art. 14)

When does a site become a risk (art. 3 (28)) ?



pollution → soil, vapours, water → a child, an ecosystem

Only a complete chain is a risk: act on any link

❖ Contaminated sites: managing risk ≠ restoring soil health

✓ Constraining the procedure, not the standard

Each Member State decides what an “unacceptable risk” is (Art. 16(2))

No EU targets

no common thresholds
or techniques

PFAS

same concentration,
different verdicts

27 definitions

of what is
“acceptable”

= Here, subsidiarity prevails over harmonisation

✓ Two logics that do not really meet

Risk-based approach (Art. 13-16) vs soil as a living system (Art. 3(5))

Human health (risk)

- Risk can be cut, not removed
- Cap, containment, use restriction
- Art. 16(5): only “aim for” clean-up

Soil health

- Remediation ≠ better soil health
- Techniques may harm soil (rec. 68)
- Investigation: contamination only

↳ Art. 193 TFEU: any State may go further

❖ Where the Soil Monitoring Directive builds a soil culture

Education, training & capacity building, awareness actions, information & advices...

Recitals in the preamble = orientations

Recital 13

'Soil Deal for Europe' mission
awareness + capacity building + training

Recital 54

information & advices
+ capacity building + awareness

Recital 57

soil education
+ citizen participation

Recital 73

transparency & public accountability
+ awareness

Articles = obligations

Article 9

infrastructure & equipment
+ trained staff (lab)

Article 11 (a)

impartial, independent advices
+ training & capacity building

Article 11 (b)

awareness of benefits

A sociological reading: law names the issue and gives it legitimacy; people make it live

- Legal recognition: soil, a legal issue in its own right
- Awareness & voluntary engagement: farmers, authorities, citizens
- Under way: EU Mission "A Soil Deal for Europe", EU Soil Observatory

⇒ **Who carries this culture on the ground?**

Soil Monitoring Directive

Awareness, education,
training & advisory actions

Structural & systematic

UNESCO Chair: Contributing to a Culture of Soils

An operator of translation

Science

Produces knowledge
about soils

Training

students, farmers
& stakeholders

Awareness

Spreads the importance
of soil as widely as
possible: from children to
decision-makers

- 7 countries across 4 continents
- Diversity of pedoclimatic contexts
- Interdisciplinary, multi-stakeholder approach



CONCLUSION

When the EU measures its soils, does it oblige anyone to protect them?

Only partly: a directive of knowledge more than a directive of protection

MONITORING

**Europe measures together;
each State decides for itself**

Common descriptors and data – but
no duty to improve soils, and no
threshold for soil life.

REMEDIATION

**Risks are managed, soil health
is not (yet) restored**

Dated, enforceable duties, but each
State defines “unacceptable”, and a
cap can suffice.

NEXT STEP

**From measuring to protecting,
from remediating to restoring**

Science: thresholds by 2033

Practice: soil health in remediation

Culture: Art. 11.

Europe now measures its soils together. Protecting – and restoring – them is up to all of us.

THANK YOU



**DEMAIN
COMMENCE ICI**

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