



Proposal for a Directive on Soil Monitoring and Resilience

CDG 6/7/2023

ENV.D1 Land Use & Management
European Commission

SOIL DEGRADATION IN THE EU: why do we need to act?

60-70%

of soils are not healthy

13%

of EU soils suffer from high erosion with 1.25 bEUR yearly losses in crop yield

78%

of land take takes place in agricultural land

7.4 million tonnes

of CO₂ lost yearly by mineral soils under cropland

25%

of land in Southern, central and Eastern Europe at high or very high risk of desertification

200 – 800 k deaths globally per year due to soil contamination

390.000 contaminated sites to be remediated

SOIL THREATS: Erosion, compaction, organic matter decline, pollution, loss of biodiversity, salinization, desertification, land take & sealing



Healthy soils as key contribution to 4 EGD objectives



Healthy soils for achieving the Union's overarching objectives concerning **climate change mitigation and adaptation** and **biodiversity**



Healthy soils for preventing and mitigating the impacts of **natural disasters** and increasing the **drought resilience**



Healthy soils for increasing/ensuring the EU's **long term capacity** to produce **sufficient, safe and nutritious food**



Healthy soils for protecting the **health** of EU citizens





The commitment in the EU Soil Strategy

- By **2050**, all EU soil ecosystems are in **healthy** condition and are thus more **resilient**, which will require very **decisive changes** in this decade.
- By then, **protection, sustainable use and restoration of soil** has become the norm.
- Healthy soils are an essential part of the **solution** to achieve **climate neutrality**, a clean and **circular economy**, revert **biodiversity loss**, safeguard **human health**, halt **desertification** and revert **land degradation**.

Soil Monitoring Law proposal – key features

Scope



Mix of flexibility & harmonization to help MS and soil managers

The overarching objective of the directive is:

- to put in place a coherent **soil monitoring framework for all soils** that will provide **data on soil health** in all Member States, including data on contaminated sites
- to continuously improve soil health to achieve **healthy soils by 2050** and maintain soils in healthy condition, so that they can **supply multiple services** at a scale sufficient to meet **environmental, societal and economic** needs, prevent and mitigate the impacts of **climate change** and **biodiversity loss**, increase the resilience against **natural disasters** and for **food security** and that soil contamination is reduced to levels no longer considered harmful to **human health** and the environment.

Objective
to achieve
healthy
soils by
2050

Mix of flexibility & harmonization to help MS and soil managers

Definition
including
healthy soil

- **Definition of healthy soils** based on latest scientific knowledge (EEA report 18/01/2023) with a **minimum set** of parameters and criteria set for several of them
- **Atypical soils** (e.g. naturally saline soils) excluded from being “healthy”
- Framed **flexibility left to MS** to fix/adapt criteria of some descriptors to local conditions
- Definition of **land take** for a common monitoring

Monitoring
and
assessment
of soil health

- **MS to monitor and assess soil health** in a sufficient number of points (monitoring completed in 4 y, assessment to be completed in 5y) – Review after 6 y
- **EC supporting MSs monitoring:** soil sampling through **LUCAS Soil+** remote sensing with **Copernicus**
- **Harmonisation of methodologies as well as flexibility for MS** to define how to measure where needed
- **Regular measurement** campaigns every 5 years to follow progress.

Soil health
certification
and support
to soil
managers

- **Support and reward for soil managers** (and beyond): MS to set up **voluntary soil health certification**, synergetic with carbon removal certification

Mix of flexibility & harmonization to help MS and soil managers

Sustainable
use of soils

- **Basic principles for sustainable soil management** (inspired by CAP GAECs but applicable to all soils)
- MS to **promote the implementation of those principles** by defining practices, raising awareness, informing on available funds, research, providing guidance, training and advice
- It does not prohibit or limit **land take** but sets **mitigation principles**

Identify,
investigate,
register and
remediate
contaminated
sites

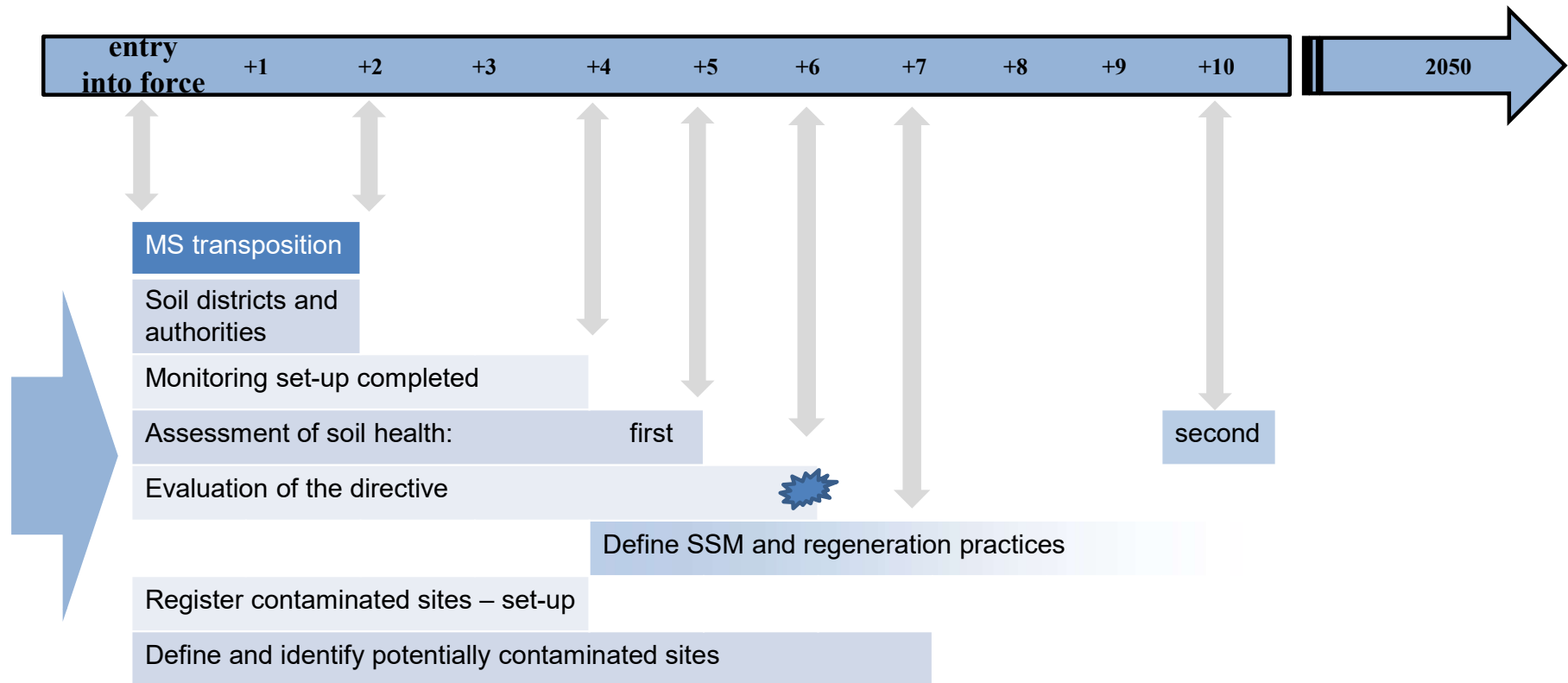
- Obligation to **define and identify (7 years) potentially contaminated sites, investigate** them and in case contamination is confirmed **make a risk assessment**
- **MS to take risk reduction measures (e.g. remediation or confinement); risk-based** (left to MS judgement) = when there is an 'unacceptable' risk (e.g. sites close to schools)
- MS to set up a **register** of contaminated and potentially contaminated sites

Mix of flexibility & harmonization to help MS and soil managers



Reporting and evaluation

- Member States to **regularly (every 5 years) report** data and information to the Commission **in electronic format**
- Reporting is key since the proposal does **not require national plans or programmes** on soils
- Early **evaluation** of the Directive **6 years** after its entry into force



Benefits for authorities, stakeholders, citizens

What is in it for land owners and managers (eg farmers, foresters)?

Better knowledge of soil health and how to get there – involvement in defining the measures
Long-term soil productivity (food security)
Support and reward for soil managers:
Access to innovation, funding, data, knowledge, advice and training (i.e. Soil Mission)
Higher value from soil health certificate, synergetic with carbon removal certification, higher land value

What is in it for citizens?

A more sustainable future with healthy soils
Access to healthier products
Strengthened resilience: prevention of disasters, long-term food security, climate mitigation and adaptation, tackling of biodiversity loss
Knowledge about the condition of soils and contaminated sites
Jobs related to soil management

Proposal for a Directive on Soil Monitoring and Resilience

What is in it for industry and economic operators?

Long-term viability of soil resources
Reclaim of contaminated sites – development projects
Level playing field on soil management and remediation of soil contamination
New opportunities for SMEs (labs, remediation, advisory services, development of remote sensing etc.)
Market and social recognition of investments in soil health and of products thereof
Availability of dedicated financial products and investment

What is in it for public authorities?

Clear legal framework across the EU
Soil monitoring data will serve several plans and existing obligations (disaster prevention, CAP, LULUCF, etc.)
Harmonization while flexibility
Support by the Commission for soil monitoring
Soil health governance and knowledge
Resilience to droughts and flooding

