



BARRIERS & OPPORTUNITIES OF SOIL KNOWLEDGE TO ADDRESS SOIL CHALLENGES

STAKEHOLDERS' PERSPECTIVES ACROSS EUROPE



CURRENT MANAGEMENT PRACTICES

The European Commission estimates that 60–70% of soils in the EU are unhealthy as a direct result of current management practices.



PRESERVING SOIL FROM DEGRADATION

Each threat represents a set of barriers and challenges to be overcome.



PRIORITY SOIL CHALLENGE

Challenge #1

Increasing organic matter and conserve peat soils.

Challenge #2

Soil water storage capacity.

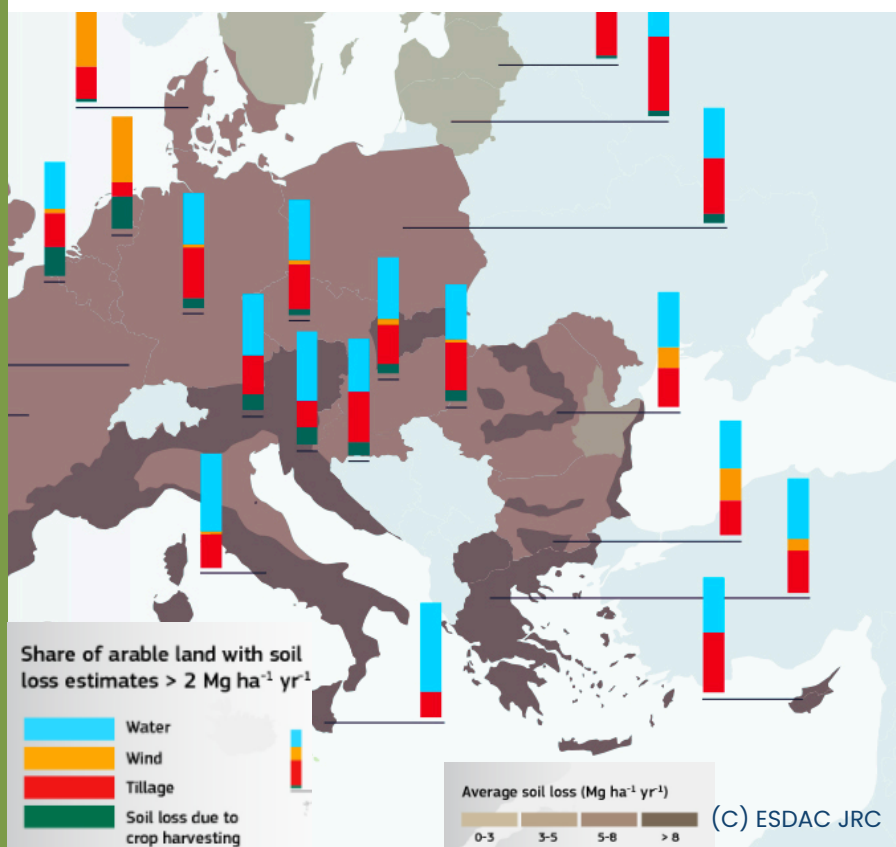
Priority barriers

The lack of research funding and communication.



AUTHORS

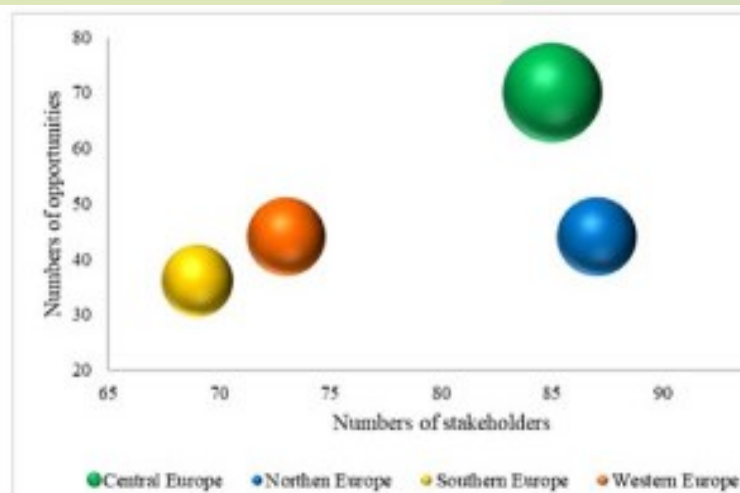
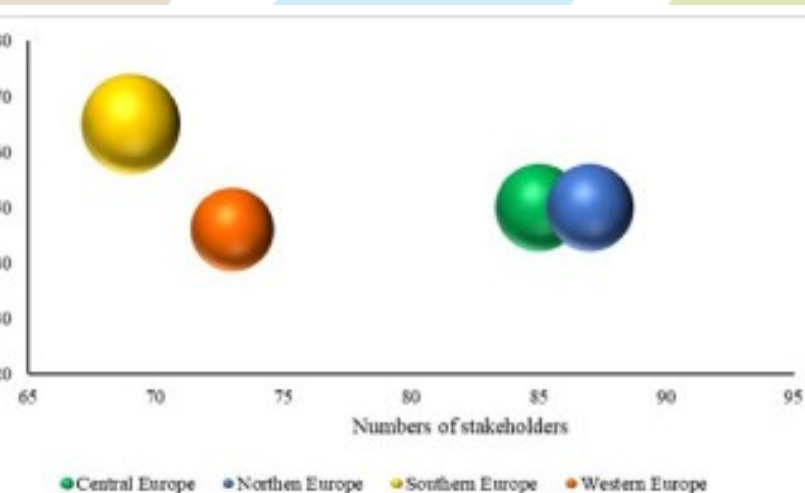
Silvia Vanino, Tiziana Pirelli,...
Roberta Farina (2023)



Major soil threats identified

Soil erosion by water & wind, declines in soil organic matter in peat and mineral soils, soil compaction, sealing, contamination, salinization, desertification, and declines in soil biodiversity.

EJP SOIL INNOVATION HIGHLIGHTS



TOWARDS CLIMATE-SMART SUSTAINABLE MANAGEMENT OF AGRICULTURAL SOILS

EJP SOIL is a European Joint Programme on Agricultural Soil Management addressing key societal challenges including climate change and future food supply.

The goal is to improve the understanding of agricultural soil management by finding synergies in research, strengthening research communities and raising public awareness.

1100+ scientists, 24 countries, addressing multiple aspects of soil management across different European agroecosystems.

EJP SOIL STUDY - NATIONAL LEVEL STAKEHOLDER CONSULTATIONS

Survey in 20 countries: 314 stakeholders.

Aim to identify important barriers and challenges currently affecting soil knowledge but also assess opportunities to overcome these obstacles. Significant room for improvement of knowledge production, dissemination & adoption is needed. The most important barriers identified are technical, political, social and economic obstacles.

TARGET EJP SOIL EXPECTED IMPACT AND EU MISSION SOIL OBJECTIVES

Fostering understanding of soil management and its influence on climate change mitigation and adaptation, sustainable agricultural production and environment.

SOIL MISSION: Conserve SOC stocks, improve soil structure to increase soil biodiversity

HIGHLIGHT FACTS FROM:

Key findings from stakeholder consultations at the national level across 20 countries



Applicability:
all climatic zones according to
Metzger et al. (2005)
<https://doi.org/10.1111/j.1466-822X.2005.00190.x>

EJP SOIL has received
funding from the European
Union's Horizon 2020
research and innovation
programme: Grant
agreement No 862695

