



MODELS HAVE A HIGH POLICY RELEVANCE

2/3 of erosion and sediment transport models are used by authorities to **monitor soil risk assessment** or mitigation measurements.



EROSION MITIGATION MEASUREMENTS DIFFER AMONG MEMBER STATES

GAEC standards are the common practice. Few mandatory requirements are placed beyond the GAEC standards. Other voluntary measures are not designed specifically for mitigate erosion risk.



HARMONISATION IS KEY

Differences on data sets (regional vs. national) and model parameterisations leads to **inconsistent soil erosion assessments** and **hinders model comparisons** outcomes across Europe



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FROM RISK TO RESILIENCE **Policy challenges for** **Soil Erosion Control**

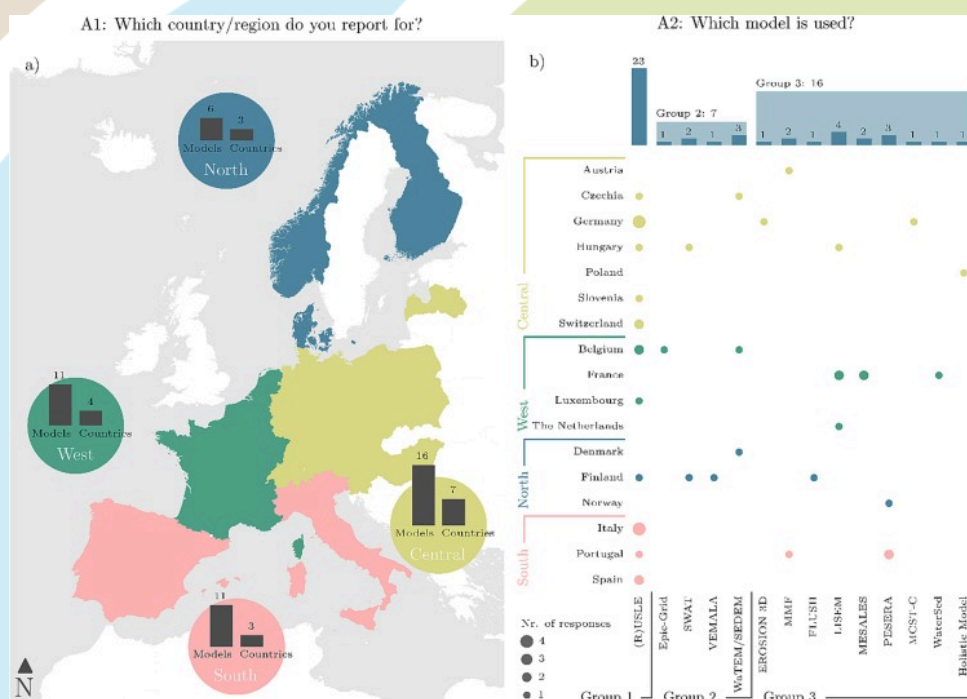


Models improvements are necessary

The survey found that the used **models for soil erosion**, require changes that include sediment connectivity and soil erosion measures. These changes would improve the *erosion risk assessment* and *implementation of targeted mitigation measures*.

The **policy-relevant erosion risk maps** should be verified by empirical data and thresholds for policy guidelines derived from erosion risk maps should be adapted to regional conditions.

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. <https://ejpsoil.eu/>

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

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

EJP SOIL FUNDED PROJECT SCALE

The SCALE project focuses on ‘sediment connectivity’, indicating, how easy it is for soil to flow from one place to another place without hindrance, and how strong for instance fields, rivers, streets are connected to each other. It also looks at current state-of-the-art of connectivity principles in modelling and legal standards. It is an objective to harmonise data sets and up- and downscaling methods. Measures and modelling approaches are evaluated and frameworks with mitigation measures and best management practices will be developed.

PROJECT COORDINATOR

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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. Develop and demonstrate region- and context-specific fertilization practices (soil, water and pedo-climatic conditions)

Mission SOIL: conserve soil organic carbon stocks, prevent erosion, improve soil structure to enhance soil biodiversity

HIGHLIGHT FACTS FROM:

EJP SOIL funded project:
 SCALE



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

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