Soils for Europe

PROJECT IMPACT ON POLICY AND ADMINISTRATION

Nóvoa, T., Roca, R. & Naciph, K. (2025). Identification and description of the KPIs to monitor the Mission R&I priorities.

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11. Number of standardized soil health indicators developed by Soil Mission Soil projects included in soil monitoring systems

QUANTITATIVE



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INTRODUCTION

SOLO introduces a comprehensive impact assessment framework designed to evaluate the real-world effects of Mission Soil research and innovation activities across society, the economy, policy, and practice. This adaptable tool supports Mission Soil projects in monitoring and evaluation, with future potential for ex-ante assessment and project design. Beyond defining key components, qualitative indicators, quantitative metrics, and impact narratives, SOLO also outlines the mechanisms needed to effectively implement the framework in practice.

The assessment framework allows for the evaluation of 5 types of impact of Mission Soil Research and Innovation (R&I) activities:

1. **Project impact in practice**: focus on impact among land managers, advisors, urban planners and other stakeholders;
2. **Project impact on policy and administration**: focus on policy strategies and tools, and other institutional arrangements;
3. **Project impact on value chain organisation and practices**: focus on market mechanisms, business models and requirements;
4. **Broader societal impact**: focus on literacy, awareness, school programmes and education;
5. **Impact on research and innovation:** focus on academic institutions, researchers, publications and funding.

These 5 types of impact correspond to categories under which key performance indicators, both quantitative and qualitative, are grouped.



The other component of the impact assessment framework is the **impact narrative**: a compelling, substantiated statement which reflects the contributions of R&I activities to society, the economy, policy and practice beyond numbers and quantitative targets.

An **impact narrative** must describe the societal challenge to be tackled; identify the stakeholders and beneficiaries who are positively impacted, explaining how they have experienced meaningful change; describe the situation at the start of the project vis-a-vis the goal of the assessment; describe the specific outcomes and results of the R&I activities; describe changes in behaviour, practices and policies; include real-world examples and stories; be supported by quantitative and qualitative evidence; connect the impact to broader societal goals; and provide insights into the potential future implications and opportunities resulting from the developed R&I.

Number of standardized soil health indicators developed by Soil Mission Soil projects included in soil monitoring systems

DESCRIPTION AND IMPORTANCE

This KPI quantifies the number of standardized soil health indicators that have been integrated into soil monitoring systems as a result of development and proposals by Mission Soil projects. Standardized soil health indicators are scientifically validated, harmonized metrics that enable consistent assessment of soil condition, degradation, and ecosystem service provision across different land uses and geographic regions. These indicators are selected based on their relevance to soil functions, feasibility of measurement, and alignment with Mission Soil objectives.

Standardization ensures that indicators are comparable across sites, projects, and countries, facilitating data integration and supporting evidence-based decision-making at local, national, and EU levels.

DEFINITION

Number of standardized soil health indicators included in national soil monitoring systems that were developed by Mission Soil Projects.

MEASUREMENT

This indicator is measured by counting the number of soil health indicators that have been developed by Mission Soil projects and formally included in local, regional, national, and EU-level soil monitoring systems.

The indicator is disaggregated by:

- Type of soil health indicator: physical, chemical, biological
- Level of standardisation: project-level standard, national-level adoption, proposed to EU-wide frameworks

Stage of adoption:

- Developed and validated by project
- Formally proposed to relevant monitoring bodies
- Under review
- Adopted by a monitoring system
- Geographic scope of the proposed application (EU, NUT level 1-3, local)

Data can be collected from project deliverables detailing the development and validation of soil health indicators.

Only indicators that demonstrate formal proposal, submission for integration or actual adoption — beyond internal project use — are counted.

LEVEL

EU, MS, NUTS level 2-3

DATA SOURCE

MS reporting; EUSO; Project reporting

PERIODICITY

Quadrennial

TYPE

Outcome

CLASS

Enabling conditions

REFERENCES

Huber, S., Syed, B., Freudenschuβ, A., Ernstsen, V., Loveland, P., & Gentile, A. R. (2001). *Proposal for a European soil monitoring and assessment framework*.

Pavlu, L., Sobocka, L., Boruvka, L., Penizek, V., Adamczyk, B., Baumgarten, A., Castro, I. V., Cornu, S., de Boever, M., Don, A., Feiziene, D., & Vervuurt, W. (2021). *Stocktaking on soil quality indicators and associated decision support tools, including ICT tools*. https://doi.org/10.18174/563875

ISO. (2022). *Soil quality: framework for detailed recording and monitoring of changes in dynamic soil properties (ISO 23992:2022)*. https://www.iso.org/standard/77569.html

