

Successful stakeholder participation to address soil needs.

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- Soil needs are stakeholder and region specific.
- The implementation of the EU's Mission Soil, the EU Soil Strategy for 2030 and the future Soil Monitoring and Resilience Directive needs to recognize this broad spectrum of soil needs.
- We recommend formalizing the stakeholder participation to address soil needs by setting up national hubs.
- Effective national hubs are 'owned by an authority' and have as an objective to i) inform national policy makers on soil challenges and policy needs; ii) debate policy proposals and their implementation and iii) provide feedback on anticipated impact of proposed policies.

INTRODUCTION

Both the communications on the 'EU Soil Strategy for 2030' and on 'Sustainable Carbon Cycles', rely on development of new knowledge and making that knowledge effectively available to land managers. Yet soil needs are stakeholder and location specific and these needs may be positively or negatively addressed by soil management. The European Joint Programme (EJP) SOIL works across 46 institutions in 24 European countries to build a sustainable European integrated research system and develop and deploy a reference framework for climate-smart, sustainable agricultural soil management. Close interaction with stakeholders is key to realize sustainable soil management to maintain the soil in a healthy condition and practices need to be adapted to different soil types, climatic conditions and local contexts. This policy paper discusses opportunities for successful stakeholder participation to address the broad diversity of soil needs and successful Mission implementation looking at the example of National Hubs within EJP SOIL.

NATIONAL HUBS IN EJP SOIL

The EJP SOIL National Hubs are an instrument developed for consultation with stakeholders & the science to policy interface. National Hub members represent the breath of national agricultural systems and soil management practices and are invited to attend dedicated regular meetings, and broader events and workshops. The members voice regional and national needs, contribute to their countries' position towards agricultural soil management, share and exchange knowledge, and thereby contribute to and learn from the EJP SOIL programme's outputs.



Watercolor painting by Rocío Lansac titled "Scientists and other stakeholders at La Canaleja Field Station, CSIC Madrid".

KEY MESSAGES FOR POLICY MAKERS

Soil needs are stakeholder and region specific; the implementation of the soil mission, the soil strategy and the soil monitoring law needs to recognize this broad spectrum of soil needs.

When EU stakeholders were asked for their soil ambitions, their future soil knowledge needs and the drivers affecting them, EJP SOIL researchers could make a clear differentiation in soil needs across pedoclimate zones (fig. 2) and across stakeholder type.

Assets for a successful National hub include, a representative subset of soil stakeholders; including representatives of the regional or even local scale; a clear mandate and objective, and leadership by a national authority.

Stakeholders can 1) inform on soil challenges and policy needs 2) debate policy proposals and their implementation 3) feedback on anticipated impact of proposed soil policies; as such provide relevant insights and a wealth of practical knowledge

National Hubs should be allowed freedom to function differently between the countries depending on their pre-existing structures.

To enhance visibility and facilitate implementation of the Soil Mission, the Soil Mission Board advice member states to set up Soil Mission Mirror Groups. For policy makers to make efficient use of the example of the National Hub for the implementation of the soil mission, the soil strategy and the soil monitoring law we advise to compose the Soil Mission Mirror Group of interacting groups; a policy group and 1 -4 stakeholder groups (related to agricultural, urban, industrial and nature soils), that meet on a regular basis.

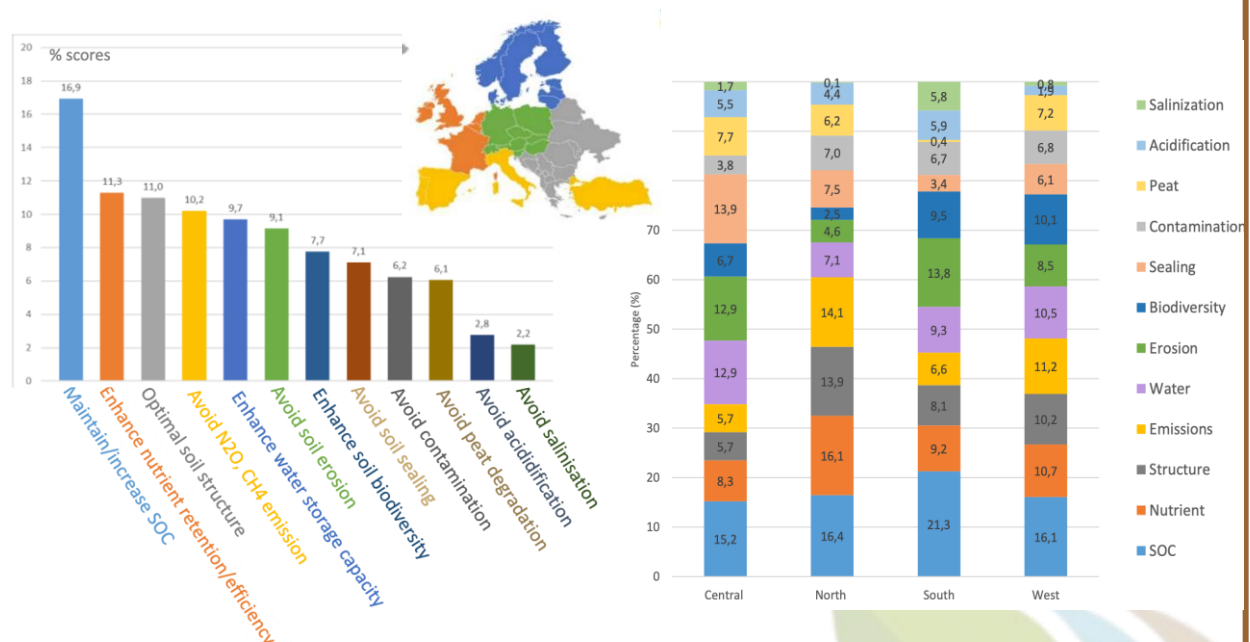


Figure 1; Knowledge on how to maintain and increase soil organic carbon is a common knowledge need in the EU. Other Soil needs, like avoiding N2O and CH4 emissions, are region dependent. The maps shows the regional coverage North (blue) Central (green), South (yellow) and West (orange) (Jacob et al; 2020).

INVENTORY OF SOIL NEEDS ACROSS EUROPE

EJP SOIL performed an EU-wide inventory of soil (knowledge) needs on climate-smart agricultural soil management in 2020 and 2021. In each country an “EJP SOIL National Hub” i.e., a group of stakeholders comprising representatives from main soil stakeholder groups including academics, policy makers, NGO’s and farmer organisations or farmers was formed. This national hub had as mission of providing input and feedback to the EJP SOIL programme and voicing national specificities and needs. With the national hub as a basis, in the 24 participating EU countries a thorough national stakeholder consultation was performed. In total >700 stakeholders were consulted. This data highlighted key techniques that can be used to conduct research that are inherent in improving its effectiveness, efficiency and active ability to contribute to the implementation of the EU Mission Soil, the Soil Strategy, and the Soil Monitoring Directive. We concluded that knowledge development needs to be: (i) interdisciplinary, (ii) long-term, (iii) multi-scaled, from plot to landscape, (iv) evaluate trade-offs of selected management options for ecosystem services and (v) co-constructed with key stakeholders (Keesstra et al. 2023).

Clearly, stakeholder perception provides interesting insights in soil needs/ soil challenges and stakeholders provide a wealth of (practical) knowledge. Interestingly, a clear distinction could also be made between the soil needs of different regions. Northern countries showed high interest in enhancing nutrient efficiency whereas Southern countries prioritized soil erosion and salinisation (Fig. 2).

DESIGN FOR SUCCESS; AN ACTIVE NATIONAL HUB

Upon establishing National Hubs, the differences in stakeholder participation across Europe quickly became evident. Sometimes the national hub consists of 15 participants, sometimes of 50, they meet between 1 and 4 times a year and can have only discussions or relevant topics or organise field trips. **It is therefore recommended that the development of a National Hub (or a similar body) builds upon the existing stakeholder participation methods and structure best suited to each specific country.** Despite the differences between countries, some common success criteria for active and functional National Hub members in EJP SOIL were identified. Members: i) are appointed by a national authority; ii) have a good understanding of what EJP-SOIL is; iii) (know one another well and) can interact easily; iv) meet often enough to allow continuity of discussion and purpose; v) take ownership and contribute with meaningful opinions and understand the purpose and function of the National Hub.

To further assure active stakeholder participation it is important to avoid stakeholder fatigue by organising interesting (targeted) sessions and to formally recognise the effort from the (often) voluntary input of the stakeholders for instance through ‘formal invitations to participate’ by an authority.

Paying attention and linking to other stakeholder groups with similar objectives, organized by different projects or initiatives, is key to avoid this fatigue. Joint events may be the solution, where the objectives of the different initiatives or projects are tackled together.

MOBILIZING STAKEHOLDERS FOR SUCCESSFUL DEVELOPMENT AND IMPLEMENTATION OF THE SOIL MISSION.

The Mission 'A Soil Deal for Europe' is an ambitious, innovative instrument launched to accelerate the development and large-scale deployment of solutions for sustainable land and soil management as part of a wider, green transition. To enhance visibility and facilitate implementation of the Soil Mission, the Soil Mission Board advice member states to set up Soil Mission Mirror Groups.

For policy makers to make efficient use of the example and practice of the EJP SOIL National Hubs for the implementation of the soil Mission Soil objectives, the EU Soil Strategy and the future Soil Monitoring Law, **we advise to compose the Soil Mission Soil Mirror Groups, which are expected to exist in each Member State at national level, be composed of several interacting sub-groups;** a policy group and 1 to -4 stakeholder groups (e.g. related to agricultural/forest, urban, industrial and natural soils). The policy group can be composed of representatives of entities under the sectorial Ministries are relevant for the Mission (think of representatives of departments of Agriculture, Environment, Science or Education). This Policy Group defines the specific scope of the Stakeholder Group and invites the stakeholders. The four stakeholder groups include sectoral organizations, researchers, and representatives of key groups in the community, considering the national scale but also the regional and if possible the local.

A Mission Soil Mirror Group could i) inform national policy makers on soil challenges and policy needs; ii) debate policy proposals and their implementation, and iii) provide feedback on anticipated impact of proposed policies; iv) respond to demands

for advice by the different sectors in the central/national administration; v) create guidelines for the soil health cause to be promoted also in regional and local policies and initiatives. Finally, the Mission Soil Mirror Groups could propose initiatives aligned with different stakeholders, organize national activities and create awareness.

In addition to this policy brief, The Mission Soil Board is developing a Set of recommendations on the development of national Mission Soil Mirror Groups (to be released January 2024).

REFERENCES

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