



Soil-X-Change



**Funded by
the European Union**

**INITIATIVE OF FOSTERING CROSS-BORDER
KNOWLEDGE EXCHANGE AND CO-CREATION
ON SUSTAINABLE SOIL AND FARM MANAGEMENT**

Soil-X-Change has received funding from the European Union's Horizon Europe Framework Programme, Coordination and Support Actions under grant agreement No. 101133914



Soil-X-Change

*Fostering cross-border knowledge exchange and
co-creation on sustainable soil and farm management*

Deliverable 2.1

Initial guideline for network establishment, governance and management

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|--------------|---|-------------------------------------|---------------------|--|-------------------------------------|
| R | Document, report | <input checked="" type="checkbox"/> | PU | Public | <input checked="" type="checkbox"/> |
| DEM | Demonstrator, pilot, prototype | <input type="checkbox"/> | CO | Confidential, only for members of the consortium (including the Commission Services) | <input type="checkbox"/> |
| DEC | Websites, patent fillings, videos, etc. | <input type="checkbox"/> | | | |
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List of Abbreviations

| | |
|----------|--|
| AKIS | Agricultural Knowledge and Innovation System |
| AKIS CBs | Agricultural Knowledge and Innovation System Coordination Bodies |
| BEC | Bioeconomy Cluster |
| BOKU | Universitaet Fuer Bodenkultur Wien |
| EIP-AGRI | Agricultural European Innovation Partnership |
| INM | Innomine Digital Innovation Hub Nonprofit KFT |
| KB | Knowledge Board |
| LLs | Living Labs |
| NAAS | National Agricultural Advisory Services |
| NNF | National Node Facilitator |
| OG | Operational Group |
| PIPs | Projects, initiatives, platforms |





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Executive Summary

The Soil-X-Change project aims to create a collaborative environment where stakeholders can exchange knowledge, share best practices, and accelerate the adoption of sustainable soil management practices for the long-term sustainability of agricultural systems.

Therefore, this Initial guideline for network establishment, governance, and management aims to determine the procedure, identify individual steps and roles of individual partners in creating Soil-X-Change Net. Additionally, it details the description, establishes the rules, and outlines the key benefits and responsibilities within the network.

The guideline covers the following areas: establishing the Soil-X-Change network, its structure, management, network activities, communication, network monitoring and reporting.





Introduction

The shifting environmental landscape poses a threat to agricultural soil health and jeopardizes the sustainability of our food production systems. To counter this challenge, sustainable soil management practices are essential. These practices aim to enhance soil organic carbon stocks, improve soil structure, optimize water retention, and foster efficient nutrient cycling. The Soil-X-Change project is dedicated to facilitating the exchange of knowledge surrounding these crucial practices. By doing so, it aims to catalyse the adoption of sustainable soil management techniques among agricultural practitioners. Central to its mission is the collection, harmonization, integration and sharing of insights gathered from sustainable soil management initiatives within EIP-AGRI Operational Groups.

For effective knowledge sharing the Soil-X-Change is going to build a network (Soil-X-Change Net) of all relevant actors as a platform facilitating the sharing of knowledge and experiences in sustainable soil management among various practitioners. Its goal is to accelerate the adoption and uptake of sustainable soil management practices and innovations both within and beyond the 9 partner countries in the project. Soil-X-Change Net creates an environment where farmers, experts, and other stakeholders can communicate, share best practices, new technologies, and research findings, thus helping each other to achieve better results. The network will have multi-level nature connecting local actors between each other and with other European OGs, projects and initiatives.

The Soil-X-Change Net will operate through a series of coordinated activities aimed at promoting knowledge sharing, collaboration, and innovation in sustainable soil management. The activities of network will include organization of workshops, webinars, meetings, and other events for National Nodes members and other actors to facilitate knowledge exchange among stakeholders. Members of network will have access to a wealth of resources contributed by stakeholders from different countries and EU projects and initiatives. Furthermore, the Knowledge Board (KB) will be established and its main role will be to validate practices and provide expertise on the effectiveness and feasibility of sustainable soil management techniques. AKIS actors and AKIS Coordinating Bodies (CBs) will be also involved in the network as they play an important role in disseminating information and promoting the adoption of sustainable soil management solutions to wider range of AKIS actors.

This initial guideline for the Soil-X-Change Network establishment, governance and management represents the description, sets the rules and defines main benefits and obligations of the network Soil-X-Change Net, which is being developed within the Horizon Europe project Soil-X-Change. The guideline will be updated in the process of the Soil-X-Change project implementation. In line with objectives of project, the guideline will be updated in M18.





1 Objective of Soil-X-Change Net

The objective of the Soil-X-Change Net is to foster collaboration and knowledge-sharing that facilitates the exchange of best practices, innovations, and expertise in sustainable soil management across Europe. By connecting national stakeholders under 9 national nodes (NNs) (BG, SK, ES, HU, IT, SI, PL, AT, DE), who will be sharing insights, and by promoting cross-border collaboration, the network aims to accelerate the adoption of sustainable soil management practices, enhance soil health, and contribute to the long-term sustainability of agricultural systems. Furthermore, this network provides a space for learning, discussion, and collaboration, contributing to the strengthening of the agricultural sector.

2 Establishment of the Soil-X-Change Net

In this section the main steps and processes of the network establishment are described. The circumstances can differ in Soil-X-Change partner countries, therefore the order of the steps can vary in each country.

STEP 1 - Identification of the National node facilitator in each partner country – Before the establishment of the National Nodes, the basic units of the Soil-X-Change Net, we commenced with the identification of the National Node Facilitators. Each partner country in the project should appoint one person for role of the National Node Facilitator (NNF), who will be responsible (with support of the partner organization/s in his/her country) for the overseeing and management of the National Node. The Task 2.2 developed a set of requirements and characteristics which the NNF should meet or responsibility for bringing in:

- very good knowledge of the organization of the national agricultural landscape (consultants, research institutions, agricultural organizations, government agencies, interest groups, farmers, AKIS, etc.),
- very good networking with national agricultural organizations,
- good communication talent and didactic skills (in both English and the national language),
- good organisational skills,
- adequate agricultural knowledge on agriculture, soil health and soil cultivation,
- experience in organizing events (e.g. workshops, focus groups discussions) and moderation skills are advantageous.

Based on these criteria, partners were asked to identify 1 NNF per country. The latest list of NNFs is available in table 1 (version from 15/03/2024).





Table 1: List of NNFs

| Country | Org. | NNF | Job/function/position | Email |
|---------|-------|----------------------|---|--|
| HU | AKI | Gabor Kiraly | Researcher and SoilXChange project lead at AKI | kiraly.gabor@aki.gov.hu |
| AT | BOKU | Marie-Luise Wohlmuth | Researcher at BOKU university | marie-luise.wohlmuth@boku.ac.at |
| DE | ATB | Carolina Silva | Agro-Scientist at ATB | csilva@atb-potsdam.de |
| SK | BEC | Tatiana Bullová | Project manager at BEC | bullova@bioeconomy.sk |
| IT | UNISS | Claudio Zucca | Professor at UNISS | clzucca@uniss.it |
| SI | KGZS | Lara Resman | Project manager | lara.resman@kgzs-ms.si |
| BG | NAAS | Ivanka Todorova | Secretary General | ivanka.todorova@naas.government.bg |
| PL | CDR | Aleksander Bomberski | Head of Innovation in Agriculture Department/National Innovation Broker/ Researcher | a.bomberski@cdr.gov.pl |
| ES | AMB | Ricardo Zarate | Sociology and agriculture. Soil-X-Change Environment | ricardo.ambienta@gmail.com |

Any changes to the NNF List will be communicated via communication channels (email, MS Teams) to all project members by the Task 2.2 lead (BOKU) as soon as possible.

STEP 2 – Identification of Sustainable Soil Management related OGs and other interested stakeholders in all 9 partner countries – Each Soil-X-Change partner organization started to map the environment of their country to identify soil related **OGs (finished, ongoing and future)** national projects or stakeholders, related to or interested in the sustainable soil management practices. As the conditions differ from country to country, each country can use a slightly different approach. As a basis for starting of the mapping BEC prepared the initial list of OGs in each country as a result of the analysis of the EIP-AGRI projects database ¹(retrieved: September 2023). Soil-X-Change partners are invited to review the list and consider collaboration with the most relevant OG projects. The “Most relevant OGs” in the context of Soil-X-Change, should be the ones that have direct connection to one or more Sustainable Soil Management (SSM) practices. Specifically, OGs whose stated objectives involve the development or implementation of technologies, systems, or methods aimed at enhancing soil health are considered pertinent to Soil-X-Change. To be deemed relevant within the context of Soil-X-Change, these OGs must have successfully achieved and quantified their

¹ https://eu-cap-network.ec.europa.eu/projects/search_en





objectives. While Soil-X-Change primarily focuses on OGs, this criterion also extends to other types of projects, including both national and EU projects.

Besides that, it is highly recommended to consider for collaboration OGs, farmers and other stakeholders from Soil-X-Change partners network. For external members, Soil-X-Change partners should review the national databases of OGs or reach out to national/regional AKIS CB or other body responsible for coordinating AKIS and OGs, for retrieving the information on OGs in country or region.

STEP 3 – Initiation of contact with the most relevant OGs, national projects and stakeholders – Once the relevant OGs and stakeholders are identified, Soil-X-Change partners will initiate contact with them. The primary objective is to introduce the project, its aims, and the envisioned network, emphasizing the potential activities they can engage in and benefit from to motivate potential members to collaborate with Soil-X-Change network. It is crucial to attract their interest and enhance their willingness to collaborate with us. Key incentives to motivate them include:

- access to knowledge and good practices from other OGs in the country and other OGs within the EU,
- access to knowledge and good practices from other EU projects, initiatives and platforms,
- opportunity to use Soil-X-Change network like a channel in order to disseminate their outcomes and achievements,
- access to information on future funding calls,
- potential for creating cooperation between OGs and LLs,
- access to advisory and extension services

Once the initial members are identified and initial contact is made, NNF will proceed with the organization of the 1st meeting with them, which will mark the commencement of the National Node (more information on organization of the 1st meeting is available under section 2.2 – Activities).

STEP 4 – Establishment of the Soli-X-Change Knowledge Board (KB) – The establishment of the KB primarily involves the identification of its members. The KB will comprise Soil-X-Change partners and external experts who will provide guidance on scientific and research decisions. It is essential for the KB to include a diverse range of expertise. The KB should consist of a minimum of 9 and maximum 15 experienced and qualified scientists, researchers, and experts specializing in soil health and its sustainable management. Each consortium member country must be represented in the KB.

The Initial formation of the KB is achieved through a round of nominations conducted during January and February 2024. Partners were requested to nominate individuals based on the following criteria:

- Employed at the partner organization
- Experienced and qualified in the field of soil health and its sustainable management
- Willing to actively participate in KB activities and annual meetings

We have received a total of 13 nominations, with 12 nominations on internal experts (representing all consortium member countries) and one nomination for an external expert from the EU CAP Network/EIP-





AGRI, which will provide added value to the KB. The list will be updated during the project duration as the additional external experts may be invited to take part in KB if any specific question or problem arises. Any changes to the KB List will be communicated via communication channels (email, MS Teams) to all project members by the Task 2.1 lead (BEC) as soon as possible. The initial list of KB members is available in Annex 1.

STEP 5 - Establishment of connections with national/regional AKIS Coordination Bodies (CBs) - Prior to initiating connections with national or regional AKIS Coordination Bodies (CBs), a mapping exercise is conducted to assess the landscape of AKIS CBs in partner countries. This process involves gathering information from Soil-X-Change partners through a series of targeted questions designed to explore various aspects of AKIS CB situation on their country related mainly to EIP OGs. Key information collected, include the identification of countries where AKIS CBs operate at regional or national levels, partners' access to these bodies, past collaborations or interactions with AKIS CBs, foreseen potential challenges in obtaining Support Letters from AKIS CBs² (draft prepared by T2.3 leader is available in the Annex 2), and other relevant considerations related to establishment of links to AKIS CBs.

Based on collected responses NAAS (Task 2.3 leader) proposes assistance to Soil-X-Change partners who indicated difficulties in finding contact information of AKIS CBs by providing following link: <https://akisconnect.eu/akis-network>. In case of further complications regarding to identification of AKIS CBs NAAS offers support (evgeniya.borisova@naas.government.bg).

Based on the relationship, Soil-X-Change partners devise the most suitable approach for contacting their respective AKIS CBs. For those with established connections, direct communication channels are favoured, while Soil-X-Change partners without prior engagement should opt for official contact protocols or intermediary assistance.

After the initial contact, Soil-X-Change partners will organize regular biannual meetings with Agricultural Knowledge and Innovation Systems Coordinating Bodies (AKIS CBs). These meetings aim to pinpoint specific areas for knowledge sharing and accelerating the adoption of sustainable soil management practices where the project can offer valuable support to AKIS CBs.

STEP 6 – Mapping, analysis and establishment of connections with OGs from non-project countries –

Within the task 2.2, BOKU will undertake the task of mapping OGs associated with sustainable soil management beyond the partner countries involved in the project. This mapping endeavour will entail desk research, containing analysis of OGs databases. Upon identifying pertinent OGs, proactive outreach will be initiated to introduce them to the objectives and activities of our project and network. Simultaneously, BOKU will gather valuable insights into the activities and best practices of OGs, which will be willing to engage with the Soil-X-Change project. Collaboration will primarily involve the dissemination of information on collected

² Draft contains the obligatory parts of support letter (project name, project acronym, identification of AKIS CB, call topic, name of project Soil-X-Change partner) but Soil-X-Change partners can adjust draft in accordance with the specific circumstances in their country.





or co-created farming practices, and invitation of OGs to events organized by the Soil-X-Change network (workshops and webinars).

STEP 7 – Mapping, analysis and establishment of connections with soil related EU projects, initiatives and platforms (PIPs) – The initial mapping will be conducted by BEC through desk research consisting of identification of relevant calls under the Horizon Europe programme, Soil Mission, JRC (Joint Research Centre), and other related to OGs, and topics on healthy soils, and analysis of available databases such as CORDIS and the EIP-AGRI projects database.

The aim is to identify PIPs that offer added value to Soil-X-Change Net. This entails seeking projects that possess valuable outcomes regarding soil management practices or organize trainings and webinars on soil management topics, or host workshops relevant to our project or members of National Nodes.

The initial desk research will be supplemented with input from project partners, who will be asked to provide information on any relevant projects not identified during the desk research. Additionally, partners will be requested to specify their connections to any of the identified PIPs. This will facilitate smoother collaboration, as Soil-X-Change partners connected to identified projects will be responsible for communicating with them. The primary aim of this communication is to explore opportunities for cooperation.

3 Structure of Soil-X-Change Net – its bodies and their roles

In this section we define the main bodies of the Soil-X-Change Net and describe their roles.

The core of the network is composed of the 9 National Nodes, 9 National Node Facilitators and Knowledge Board who are connected and managed under the single network: Soil-X-Change Net. However, the network will have also a strong interaction with external environment composed of: European projects, initiatives, networks, platforms and tools; AKIS actors; AKIS CBs; and OGs and AKISs from non-partner countries.



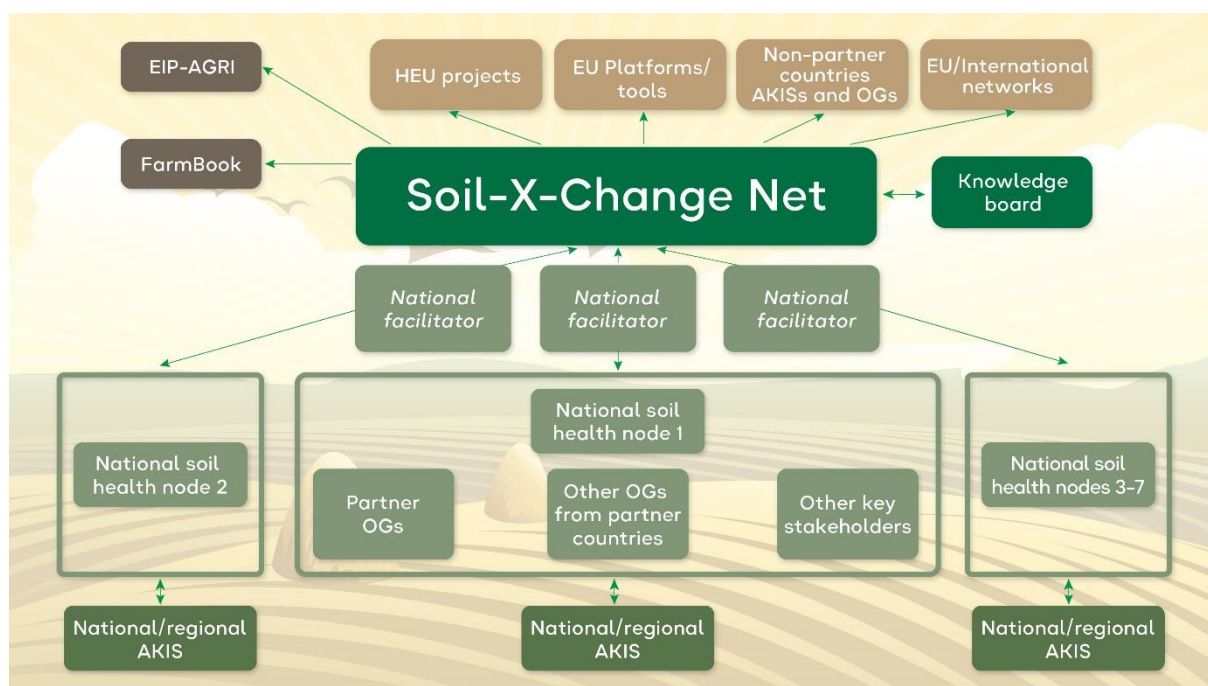


Figure 1: Soil-X-Change Net

1. National Node

National Nodes are hubs of Operational Groups related to sustainable soil management practices and other key stakeholders interested in similar themes built within one country with the purpose to share their knowledge and experiences as well as learn and gain insights from others. One National Node will be established in each partner country (Austria, Bulgaria, Germany, Hungary, Italy, Slovakia, Slovenia, Spain, Poland).

More specifically, the National Node:

- serves as central hub for OGs, national projects and other interested stakeholders of the respective country, where the knowledge from the practitioners applying the sustainable soil management practices is aggregated,
- provides space for networking with other actors from the country,
- collects, stores and shares information on practices, interesting events, trainings, workshops and webinars connected to soil for future use to members,
- establishes contact with national/regional Agricultural Knowledge and Innovation System Coordination Bodies (AKIS CBs) and looks for areas for cooperation.

The National Nodes will be composed of partner OGs, non-partner OGs and other key stakeholders. More specifically, main actor types in the National Node are:





Operational Groups: An EIP-AGRI OG is a collaborative initiative comprising individuals with diverse expertise, including practical, scientific, technical, and organizational knowledge. Together, they work to develop innovative solutions specifically tailored to improve agricultural practices. These Operational Groups, part of the AKIS, bring together stakeholders such as farmers, foresters, researchers, advisors, businesses, environmental groups, consumer interest groups, and NGOs. By leveraging the collective expertise of its members, an Operational Group aims to effectively tackle project objectives and disseminate its activities and outcomes to a wider audience (EU CAP NETWORK, 2024)³. The Soil-X-Change project primary emphasis is on OGs addressing challenges and seizing opportunities related to enhancing soil health and sustainable soil management practices.

Other key stakeholders: These can be farmers, farmer associations, researchers, advisors, extension services providers, NGOs, technology providers, and other relevant entities involved in agricultural soil management practices willing to participate in National Node activities.

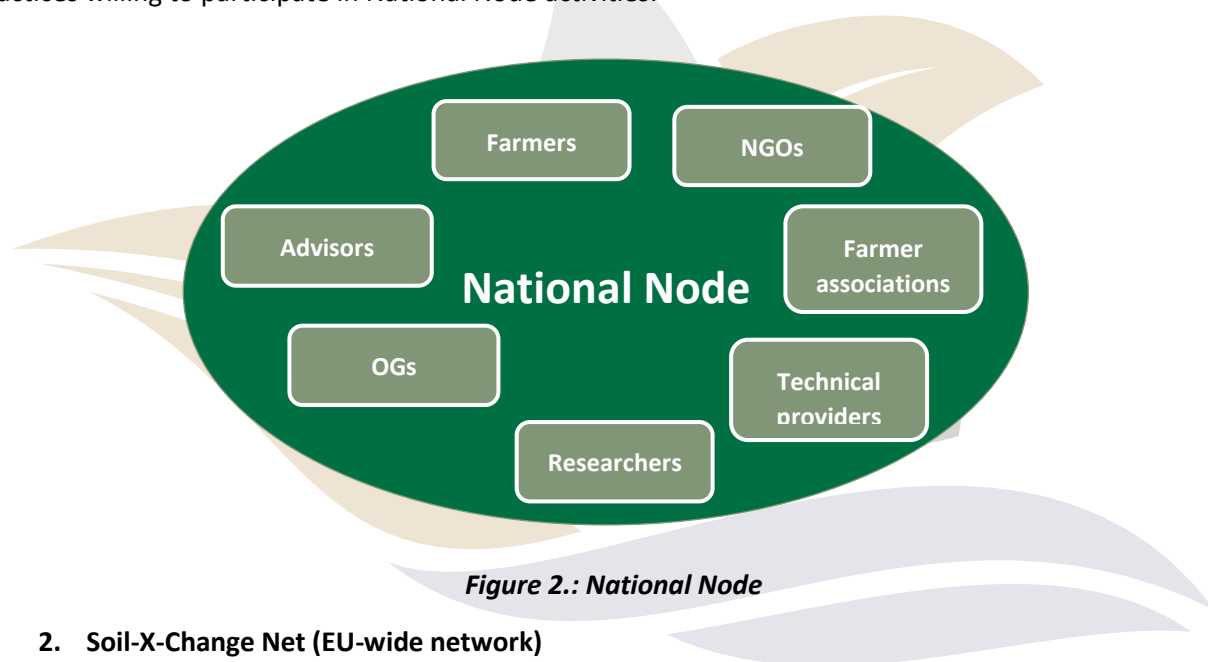


Figure 2.: National Node

2. Soil-X-Change Net (EU-wide network)

The Soil-X-Change Net is the overarching network that spans across all participating countries. It serves as a platform where practices, knowledge, and experiences related to sustainable soil management from partner countries and EU projects, initiatives and platforms are stored and subsequently shared to other members of the network.

³ https://eu-cap-network.ec.europa.eu/operational-groups_en



The role of the Soil-X-Change Net is to:

- facilitate/find a partner for collaboration and base for carrying out other types of collaboration (within and across borders),
- effectively disseminate best practices and innovations,
- create a forum for discussion and learning among diverse stakeholders.

3. National Node Facilitator (NNF)

National Node Facilitator (NNF) is a person who serves as connector between the National Node of respective country and the EU wide Soil-X-Change Net and plays a crucial role in coordination and overseeing the operation of the National Node. Every National Node will have appointed one National Node Facilitator.

More specifically, the NNF:

- a. Is a contact point between National Node in the respective country and the Soil-X-Change Net, that means, NNF serves as:
 - link to OGs in respective country,
 - link to other national stakeholders/actors in respective country,
 - link to project partners – as representative of the national node in the communication with the consortium and to transfer information from project to national node members,
 - link to national/regional AKIS CB (if this is possible, if not, NNF is responsible for collection of information regarding connection to AKIS CBs).
- b. Is involved in National Node's workshops (the partner organization is responsible for organization of the workshops; the partner organization decides whether the NNF should be also responsible for organization of the workshop).
- c. Participates at (international) NNF consortium meetings: 2 /year.

The two-way flow of information between National Node, the NNF, Knowledge Board and Soil-X-Change Net is visible in the Figure 3 bellow.



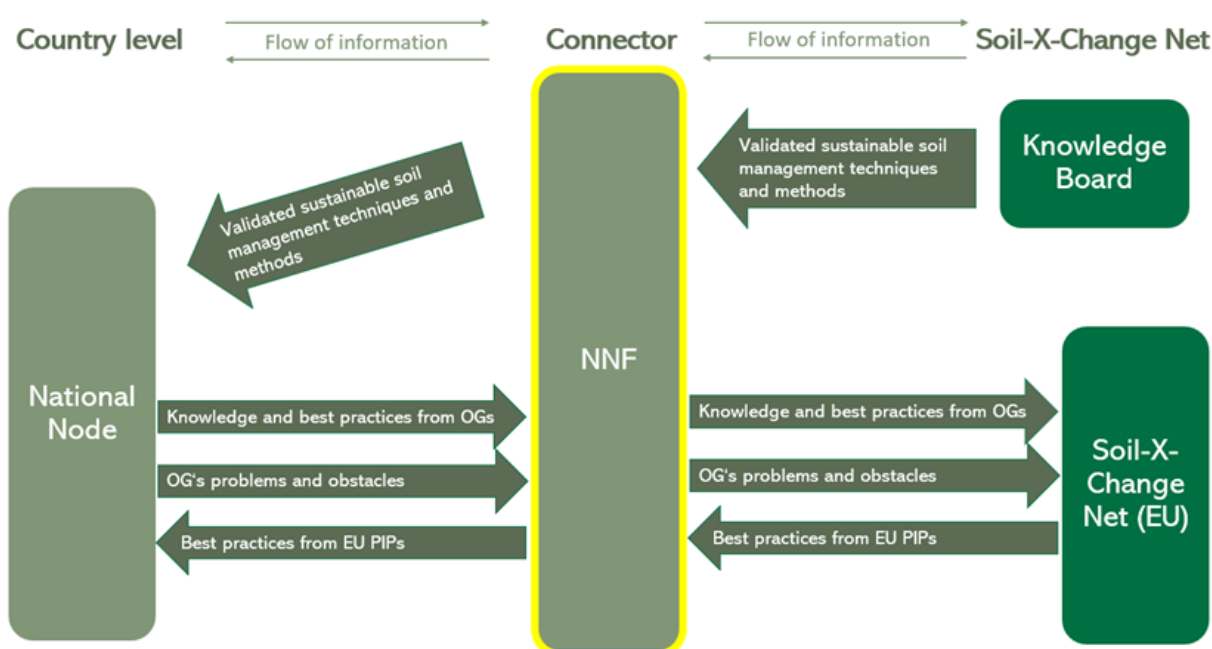


Figure 3: NNF role in Soil-X-Change Net

4. Knowledge Board

The Knowledge Board is an integral part of the Soil-X-Change network, which is facilitating the validation of practices and ensures the quality and relevance of knowledge shared within the network. The Knowledge board provides expertise on the effectiveness and suitability of various sustainable soil management practices, reviewing and evaluating soil management practices, and contributing to their validation process. The initial list of Knowledge Board members is in the Annex 1. The KB meets at least once a year or as needed and members sign the Collaboration agreement before joining the project.

The role of Knowledge Board is to:

- discuss and specify the content of the topic of 'sustainable soil management practices',
- assist and facilitate the decisions made on scientific topics,
- act as a central hub for validation of sustainable soil management practices and methods and information/knowledge exchange,
- validate the effectiveness and feasibility of on farm methodologies, selection and dissemination of collected best practices,
- voluntarily attend the national nodes' workshops and other Soil-X-Change Net meetings/events to provide thematic guidance, answer questions, and offer solutions.





5. AKISs and AKIS CBs

AKIS CBs (at national or regional level) play an important role in the knowledge sharing and acceleration of adoption of sustainable soil management practices collected and developed in the project by AKIS actors. The AKIS CBs can spread the important information on the organisation of workshops and webinars to AKIS⁴ actors more effectively.

6. External environment

Important is also the external part of the network as network's core role is to share knowledge and accelerate the adoption sustainable practices on soils throughout the EU. The network's external environment is composed of: EU projects, initiatives, platforms, OGs and AKISs from other than partner countries. The network will be collecting information and knowledge from external environment and bringing them to the Soil-X-Change Net and vice versa, the Soil-X-Change Net will be sharing the best practices to other projects, platforms and potential users from external environment. The network will be also monitoring the events, trainings, workshops, webinars etc. organized by other EU projects, initiatives, platforms and forwarding the information to network members.

4 Network management

The management of the Soil-X-Change Net is dedicated to facilitating efficient coordination, fostering effective communication, and promoting collaborative decision-making among its diverse bodies and stakeholders. Key components of network management include:

1. Oversight:

Work Package 2 and 3 leader (BEC), in collaboration with task leaders from these WPs (NAAS and BOKU), supported by the project coordinator (INM), oversee the establishment, operation, and management of the network.

These stakeholders provide strategic direction, guidance, and support to ensure that network activities are aligned with project goals and objectives.

2. Guideline:

⁴ According art. 104 from 2115/2021 during programming period 2023-2027 every EU member state will elaborate national Strategic plan for development of agriculture and rural areas (SPs), that will encompass direct payments, interventions for certain market sectors and rural development support from both the European Agricultural Guarantee Fund and the European Agricultural Fund for Rural Development (including national co-financing). In point 8.1 "AKIS" of each EU member states countries' SPs, all Soil-X-Change partners may find overall envisaged organizational set-up of the AKIS. This is the most comprehensive and exhaustive information about AKIS, which all member states will follow. Link to SPs 2023-2027 can be found here: https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans_en#cap-strategic-plans-by-country.





The guideline for network establishment, governance, and management (D2.1(M6) and its update: D2.2(M18)) serves as a comprehensive framework outlining the main roles of Soil-X-Change Net members, the bodies of the network and their respective responsibilities, as well as the activities organized within the network. This guideline is functioning as a roadmap for effective network management, guiding decision-making and ensuring consistency in operations.

5 Activities within the network

5.1 First meeting of National Nodes

Every partner country will be organizing the 1st meeting of the National Node (or its initial form, as all the members of the National Node do not have to be known in the time of organization of the 1st meeting).

Aim

The first meeting of the National Node is one of the first steps in the building of the National Node. Its purpose is to establish a relationship between the National Node members (representatives of OGs and other key stakeholders) and the NNF. At the same time the meeting will serve for collection of the important initial information on National Node members.

Timeline and Duration

The 1st National Node meeting should take place until the end of M5 of the project (May 2024). The meeting can be split to several meetings and be organized as bilateral meeting between NNF and representative of one OG or stakeholder, if the participants are not available at same time or NNF consider it as good approach for starting the good and long-term collaboration. It is recommended that the meeting take place by the end of May 2024.

The duration of the meeting depends on the individual circumstances and several factors as: the number of participants, relationship between participants and the NNF, the level of NNF's knowledge of participants, etc. The meeting duration can vary.

Participants

The participants of the 1st National Node meeting are the NNF, the representatives of OGs and interested stakeholders from respective country. Given the project's initial phase, the attendance at the first meeting of the National Node may be relatively low, what is considered normal as the network has only started to be built.

Type of the event

The 1st meeting of National Node can be organized in various forms. It can be joint meeting of several initially identified National Node members or numerous smaller/bilateral meetings of individual members and NNF. It is also up to the NNF, if the meeting will be organized in an online form or as an in-person meeting. The





important is here to ensure comfortable environment for discussion (taking into account the travel distance, time constraints of individual members and technology availability).

Activities

1. Opening - Introduction of the project, outlining its activities with the emphasis on the set up of the network, network's purpose and network's activities.
2. Getting to know each other - Each participant shortly introduces herself/himself;
 - if representant of the OG, he/she should present the topic of OG, the OG's partners, and its objectives, etc.;
 - if interested stakeholder, he/she should present the background, why is he/she interested in sustainable soil management and what are his/her objectives.
3. Identification of participants needs and barriers - During this phase of the meeting, the National Node Facilitator (NNF) will facilitate a discussion aimed at understanding the specific needs and challenges faced by individual members of the National Node regarding to adaptation/implementation of sustainable soil management practices. This activity is crucial for tailoring future activities and support mechanisms to best suit the requirements of the participants. *This might be linked with WP4 surveys.*

5.2 National Nodes Workshops

During the project duration every partner country will be organizing 3 National Node workshops.

Aim

Workshops will be mobilizing OGs, synergy projects, AKIS actors and other interested stakeholders, and their main objective will be to enhance the collaboration and exchange of knowledge between OGs and stakeholders.

Timeline and Duration

Three National Node Workshops will be evenly spread during the project lifespan. The first workshop is planned to take place in the 1st year of project implementation, thus between January – December 2024, and the two remaining workshops should be organized in the second period of the project, between June 2025 and December 2026. The recommendation is to organize the workshops between September-November each year.

The workshops' duration is not precisely set, as the planned activities may take different amounts of time in partner countries, (depending on number of participants, actor type of participants, country specificities, etc).





Participants

The participants of the workshops mainly consist of National Node members, including partner and non-partner OGs, AKIS actors, and interested stakeholders. Additionally, representatives from synergy projects, AKIS CBs, and other stakeholders will be invited. The workshop organizer should aim to invite as many participants as possible to facilitate a broad exchange of knowledge, promote the uptake of research results, and share on-farm best practices.

Type of the event

Considering the interactive nature of workshops, it is recommended to organize the workshops in person. However, if there are valid reasons (e.g., significant travel distance or complex logistics for in-person workshops), it is possible to organize workshops online. It is also recommended, to organize the workshop in the national language. These may streamline the communication between participants and enhance the involvement of bigger number of participants.

Activities

The three workshops will cover slightly different content; however, they will share some common features. Each workshop will begin with an introduction to the project and a presentation of the network by the Soil-X-Change partner. Additionally, there should be an introductory exercise for participants to help them to get to know each other. This activity aims to foster a friendly atmosphere, encourage networking, and enhance participants' willingness to share knowledge and experiences.

There is a preliminary list of activities which should be organized within the workshops. These activities will be described more in detail in the later stage of the project. At the same time, the list may not be complete at the time of preparation of the D2.1 – Initial guideline for network establishment, governance and management, meaning that there may be added other activities (supporting tasks of WP5) in the updates of the deliverable.

1st workshop

1. Opening - Introduction of the project, outlining its activities with the emphasis on the set up of the network, network's purpose and network's activities.
2. Getting to know each other – The organizer should prepare a short interactive activity, where each participant shortly introduces herself/himself; if representant of the OG, he/she should present the topic of OG, its objectives, and the OG's members, etc.; if interested stakeholder, he/she should present his/her background, why is he/she interested in sustainable soil management and what motivates him/her to be member of National Node.





3. Collection of sustainable soil management practices - NNFs should collect complementary data on soil management practices, which National Node members are developing, testing or improving. There will be a pre-defined list of variables (developed under WP4) which NNFs will be collecting to streamline the process of harmonization and further analysis the answer options will be provided.
4. Call for test users of the dashboard (in synergy with T4.3) – NNFs will shortly present the aim of the data dashboard and its deployment plan. The Dashboard will be co-designed with stakeholders and testers will be invited in later workshops to ensure that the tool meets its purpose and is user friendly.

2nd workshop

1. Opening - Introduction of the project, outlining its activities with the emphasis on the set up of the network, network's purpose and network's activities and update on the project activities since the previous workshop.
2. Getting to know each other – The organizer should prepare a short interactive activity, where each participant shortly introduces herself/himself; if representant of the OG, he/she should present the topic of OG, its objectives, and the OG's members, etc.; if interested stakeholder, he/she should present his/her background, why is he/she interested in sustainable soil management and what motivates him/her to be member of National Node.
3. Collection of new soil management practices, including update on the practices previously presented and sharing of problems - As the workshops are approximately a year apart there might be a visible progress in the National Node members activities or some problems might have arisen. The National Node members will be asked to provide update on the development in their activities related to adoption of sustainable soil management practices. Furthermore, the second workshop can be attended by new National Node members, who will also be asked to present and provide information on their soil management practices.
4. Discussion - After presentation of the sustainable practices and potential problems the organizer will open the discussion among participants. All participants will be invited to express their opinions and ideas, ask questions, provide advice or rise concerns. The organizer will be moderating the discussion, to ensure smooth communication and pleasant environment.
5. Introduction of the Data dashboard – The organizer (with the support of WP4) will present the data dashboard which contains the research findings and farming practices. The best practices and the survey results are available in easily accessible dashboard and presented in the form of short texts, charts, graphs and tables so the information and knowledge about the sustainable farm management practices are easy to read, interactive and visually appealing to end users.





3rd workshop

1. Opening - Introduction of the project, outlining its activities with the emphasis on the set up of the network, network's purpose and network's activities and update on the project activities since the previous workshop.
2. Getting to know each other – The organizer should prepare a short interactive activity, where each participant shortly introduces herself/himself; if representant of the OG, he/she should present the topic of OG, its objectives, and the OG's members, etc.; if interested stakeholder, he/she should present his/her background, why is he/she interested in sustainable soil management and what motivates him/her to be member of National Node.
3. Collection of new soil management practices, including update on the practices previously presented and sharing of problems National Node members are facing - As the workshops are approximately a year apart there might be a visible progress in the National Node members activities or some problems might have arisen. The members will be asked to provide update on the development in their activities related to adoption of sustainable soil management practices (in . Furthermore, the third workshop can be attended by new National Node members, who will also be asked to present and provide information on their soil and farm management practices.
4. Discussion - After presentation of the sustainable practices and problems related to their execution the organizer will open the discussion among participants. All participants will be invited to express their opinions and ideas, ask questions, provide advice or rise concerns. The organizer will be moderating the discussion, to ensure smooth communication and pleasant environment.
5. Collection of feedback on the data dashboard – During the second workshop, participants were introduced to the data dashboard and its features and it is expected that the National Node members were using the tool since then. In the third workshop, it is important to collect feedback from end-users so that the tool can be fine-tuned if needed. Participants will be asked several questions to help developers identify any shortcomings or potential areas for improvement.
6. Co-development of guidelines for sustainable soil management - In this interactive session, participants will collaborate to develop comprehensive guidelines for sustainable soil management outscaling to other regions. By drawing on collective expertise and experience, the goal is to create an actionable guideline that can be readily applied.





5.3 National Node Facilitators (NNFs) meetings

Biannual National Node Facilitator meetings serve for coordination in National Nodes activities between countries and aim to address obstacles and bottlenecks faced by members, by gathering and discussing solutions.

Aim

On the top of the establishment and management of the National Nodes, NNFs will be trying to help members of National Nodes with the problems, obstacles and bottlenecks they are facing while looking for/developing/testing sustainable soil management practices. NNFs will be collecting them at meetings and workshop with National Node members and bringing them to regular NNFs meetings, where they will be discussed and solutions, remedies and answers will be proposed.

Timeline and Duration

National Node Facilitators are required to convene a minimum of two meetings annually. The initial meeting will be scheduled once this guideline has been published and all National Node Facilitators in each country have been identified (no later than M6 of the project) and prior to the first meeting of the national nodes (no later than end of June 2024). Subsequently, meetings will occur approximately every six months thereafter.

Participants

All nine National Node Facilitators are required to attend the biannual NNFs together with the representative from BOKU (leading the activities in Task2.2). Furthermore, members of the Knowledge Board will be invited to these meetings, as they can offer solutions to issues faced by National Node members.

Type of the event

Given the geographical spread of the NNFs across the nine partner countries, virtual meetings are preferred. However, if there is an on-site project event that involves participation of all NNFs, the NNFs meeting can be integrated with the event and conducted in person.

Activities

1. NNFs discuss the National Node establishment, operation and management related issues.
2. NNFs share best practices, lessons learned, and successful approaches from their respective countries.
3. NNFs should gather and document problems, obstacles, and bottlenecks faced by members of National Nodes related to sustainable soil management solutions during meetings and workshops with National Node members and bring them to biannual NNFs meetings for discussion.
4. Participants collaboratively discuss identified problems and propose solutions, remedies, and answers. Knowledge Board members may contribute solutions and expertise to address issues faced by National Node members.





5. After thorough discussion, action plans are developed to address the identified problems and obstacles which are then brought to National Node members facing the problem.
6. The NNF will present and discuss national strategies to communicate and disseminate the Soil-X-Change Network project results to respective national stakeholders,
7. NNFs review the progress made on previously identified issues and action plans. Updates on the implementation of proposed solutions are shared and discussed.

5.4 Meetings with national/regional AKIS CB

Biannual contact with AKIS CBs will favour the operations of National Nodes and empower the knowledge sharing between AKIS actors.

Aim

Soil-X-Change partners will be actively working on creation of relationship with national/regional AKIS CBs for effective collaboration. After the initial contact the relationship will be built and enhanced through regular meetings.

Timeline and Duration

The meetings with AKIS CBs should be organized 2-4 times a year. The schedule of the meetings is up to partners responsible for cooperation with AKIS CBs and up to AKIS CBs availabilities. The length of the meetings is not determined, it depends purely on the activities planned.

Participants

Participants of these meetings are:

- organization representing the Soil-X-Change project responsible for communication with AKIS CBs
- the national or regional AKIS CB or other body responsible for coordination of AKIS and Operational Groups on national or regional level.

Type of event

Meetings with national/regional AKIS CB can be in the form of in-person meeting, online meeting or phone call.

Activities

Soil-X-Change partners will map relevant activities of AKIS CB, support measures they provide, their needs and problems within the knowledge sharing and acceleration of sustainable soil management practices adoption activities with the aim to find solutions and areas where Soil-X-Change can support the AKIS CBs.





5.5 Knowledge Board meetings

Aim

The Knowledge Board meetings are designed to serve as a platform within the Soil-X-Change network, ensuring the validation, quality, and relevance of shared knowledge. These meetings aim to harness the expertise of board members to evaluate the effectiveness and suitability of various sustainable soil management practices, contribute to the validation process, and facilitate the exchange of information and best practices.

Timeline and Duration

KB meetings are scheduled to occur on a regular basis throughout the project duration, aiming for a frequency of at least once a year. The specific scheduling of meetings will be determined based on the availability of board members and the needs of the project. Meetings may vary in duration based on the agenda and discussions.

Participants

Participants of KB meetings include Knowledge Board members consisting of consortium partners and external experts selected for their expertise in soil health and sustainable management practices, and representative from BEC (responsible for Task2.1).

Type of Event

Recommended are virtual meetings to accommodate the geographical distribution of members and optimize participation.

Activities

Knowledge Board meetings should address but are not limited to these three activities:

1. Review and Validation: Board members will review and validate scientific topics, methodologies, and farming practices related to sustainable soil management.
2. Knowledge Exchange: Central to KB meetings is the facilitation of information and knowledge exchange among members, fostering collaboration and sharing best practices.
3. Selection of Best Practices: An essential aspect of KB meetings involves the evaluation of the effectiveness and feasibility of on-farm methodologies, as well as the selection and dissemination of validated best practices.

5.6 Meetings with synergy projects (relevant EU projects, initiatives and platforms)

Soil-X-Change will regularly (on quarterly basis) meet with synergy projects, to discuss potential areas for collaboration.

Aim





Soil-X-Change will convene regular meetings with synergy projects to explore opportunities for synchronization of activities, knowledge sharing, and collaboration. BEC will be facilitating communication with synergy projects, however when there are Soil-X-Change partners who already have connection to synergy project then it will be strongly suggested to establish the connection through them.

Timeline and duration

Meetings with synergy projects will occur quarterly, with each session lasting approximately 1 and half hour. These meetings will commence when the synergy projects are identified and links are created.

Participants

Representatives from the Soil-X-Change project and synergy projects will participate in these meetings.

Type of event

Online meetings or online workshops are recommended for convenience and accessibility. To ensure diverse perspectives and shared ownership, a rotating leadership approach should be adopted, meaning that, each participating organization will take turns in organizing meetings, including agenda preparation and activity planning.

Activities

The agenda for these meetings will be tailored to address the specific needs and interests of participating projects. Main objectives include:

- Identifying areas for synchronization of project activities
- Sharing best practices and lessons learned
- Exploring opportunities for joint initiatives and collaboration
- Joint dissemination and communication of project activities

6 Specification of the communication rules and standards adopted within the network

6.1 Communication rules

Effective communication is vital within the Soil-X-Change network to ensure seamless data exchange and collaboration among its Soil-X-Change partners. The following communication rules and standards have to be adopted:

- Channels of communication:

Utilization of email, online and in-person meetings and phone call communication within the network to facilitate efficient information sharing and collaboration. Regular updates and announcements will be





disseminated through these channels to keep members informed about project activities, events, and important developments.

- Structured reporting:

Implementation of structured reporting mechanisms to ensure consistency and clarity in the exchange of information. National Node Facilitators (NNFs) and Soil-X-Change Net will adhere to predefined reporting formats when providing updates on their activities and progress. Reporting of network activities is under responsibility of each organizer of particular event described in section 5. Specific reporting rules are described in section 7 of this guideline.

- Timely response protocol:

Soil-X-Change partners are encouraged to respond promptly to communication within the network to facilitate efficient decision-making and coordination.

- Adherence to data security and privacy policies:

Soil-X-Change partners are to adhere to data security and privacy policies to protect sensitive information shared within the network. Implementation of measures to safeguard data integrity and confidentiality during data exchange and collaboration activities.

6.2 Flow of information

Soil-X-Change network will leverage from two-way flow of information, meaning the information will be transferred both from EU level members to national level members and vice versa from national level members to EU level members. And all this communication will be done through intermediary: the NNFs. By implementing two-way flow of information, the Soil-X-Change network aims to foster a dynamic and collaborative environment where insights and experiences from local contexts are integrated into broader discussions and initiatives at the EU level, ultimately contributing to the advancement of sustainable soil management practices across Europe.

From national to EU level:

The bottom-up approach involves the collection of data and information at the fundamental level of the network, through the activities of the National Nodes. Each National Node serves as a central hub within its respective country, gathering insights, experiences, and knowledge from local stakeholders, including Operational Groups (OGs), farmers, researchers, advisors, and other relevant actors.

National Network Facilitators (NNFs) play a crucial role in this process. They actively engage with members of the National Nodes through various activities such as meetings, phone calls, and workshops. During these interactions, NNFs collect valuable data, best practices, but also problems and obstacles, and observations from members.





The collected data undergoes a summarization and synthesis process led by the NNFs. After which the relevant information is distributed upwards to the EU level of the network and if relevant to Knowledge Board. NNFs act as channels for this upward flow of information, ensuring that insights and experiences from the national level are shared with stakeholders at the EU level.

From EU level to national level:

In contrast, the top-down approach focuses on disseminating the collected information at the EU level of the Soil-X-Change network to partners countries. At the EU level, the collected information contributes to a broader understanding of sustainable soil management practices and challenges across participating countries. The relevant information gathered from National Nodes, EU projects, initiatives and platforms is forwarded through NNFs to partner countries. It facilitates cross-border collaboration and promotes the exchange of knowledge and expertise among network members from different countries.

7 Network monitoring and rules for reporting

To effectively monitor the establishment, operation, and activities of the Soil-X-Change network, it is imperative to establish minimum rules for record-keeping and reporting. These guidelines ensure transparency, accountability, and the ability to track progress over time.

Supporting Documents for Network Monitoring

The main supporting documents for network activities monitoring include:

1. Meetings and Workshops:

- For in-person meetings and workshops with National Node members or AKIS CBs, the obligatory documentation comprises meeting/workshop agenda, signed participant lists and meeting minutes. These records serve as tangible evidence of attendance and discussions held during the gatherings. Additionally, supplementary documentation such as photos and social media posts can provide further context and insight into the event.
- For online meetings or potentially phone calls with National Node members or AKIS CBs, a list of participants and short meeting minutes are required. Screenshots may be utilized to confirm the attendance of participants and capture key moments of the discussion.

2. National Node Facilitators' Meetings and Knowledge Board meetings:

- NNF and KB meetings necessitate the maintenance of meeting agenda, a list of participants and detailed meeting minutes. These records encapsulate the deliberations and decisions made during NNF and KB sessions. Screenshots may also be employed to enhance the documentation process, providing visual evidence of participation and engagement.

3. Meetings with Synergy Projects:





- Meetings with synergy projects demand similar documentation standards, including meeting agenda, participant lists and meeting minutes. These records facilitate the tracking of collaborative endeavours and the exchange of knowledge between the Soil-X-Change network and its synergistic counterparts. Screenshots complement these records.





Conclusion

In conclusion, the establishment of the Soil-X-Change Network within the project Soil-X-Change is guided by a comprehensive set of guidelines that describe the network, set rules, and define key benefits and obligations. The network's primary objective is to foster collaboration and knowledge-sharing among national stakeholders under 9 national nodes across the project countries, aiming to promote the exchange of best practices, innovations, and expertise in sustainable soil management. By facilitating cross-border collaboration and creating a platform for sharing insights, the network can accelerate the adoption of sustainable soil management practices, improve soil health, and enhance the long-term sustainability of agricultural systems. As the Soil-X-Change project progresses, the guidelines will be continuously updated to align with the project objectives, with a specific update planned for Month 18. Overall, the Soil-X-Change Network serves as a valuable space for learning, discussion, and collaboration, ultimately contributing to the strengthening of the agricultural sector and promoting responsible environmental practices in European agriculture.





Annex 1

Annex 1: Initial list of Knowledge board members (13.2.2024)

| Name | Email | Country | Organization | Field of expertise |
|-----------------------|--|---------|--------------------------------------|---|
| Daniel Ács | acs@prounion.sk | SK | BEC | Innovation Broker in Agriculture |
| Claudio Zucca | clzucca@uniss.it | IT | UNISS | Soil science, sustainable soil management, land degradation |
| Sebastian Vogel | svogel@atb-potsdam.de | DE | ATB | Soil scientist |
| Carolina Silva | csilva@atb-potsdam.de | DE | ATB | Agronomist |
| Gabriele Gollner | gabriele.gollner@boku.ac.at | AT | BOKU | Agronomist |
| Marie-Luise Wohlmuth | marie-luise.wohlmuth@boku.ac.at | AT | BOKU | Agronomist |
| Zvezdomir Zelev | zvezdomir.zhelev@gmail.com | BG | BLUEP | Soil scientist |
| Marek Krysztoforowski | m.krysztoforowski@cdr.gov.pl | PL | CDR | Soil scientist |
| Anna Goldys | a.goldys@cdr.gov.pl | PL | CDR | Innovation broker |
| Sergiu Didiescu | sergiu.didiescu@eucapnetwork.eu | EU | EU CAP Network/EIP-AGRI | Head of Division C 'Environmental care and climate action' |
| Vince Láng | vince.lang@drdc.eu | HU | DC | Soil science, Digital Agriculture |
| Lara Resman | lara.resman@kgzs-ms.si | SI | KGZS | Microbiology, Agronomy, Soil Science, Member of Slovenian Association for Conservation Agriculture, Digital Agriculture, EIP-AGRI Innovation Broker |
| Ricardo Zárate | ricardo.ambienta@gmail.com | ES | AMBIENTA | Geography, Natural Resources Management, Environment project, Digital Agriculture, Geographic Information System and Remote Sensing |
| Zsolt Szekeres | | HU | Agrárkutató Intézet | |
| Péter László | laszlo.peter@atk.hun-ren.hu | HU | HUN-REN ATK Talajtani Intézet (TAKI) | Soil scientist |





Annex 2

Draft of Support Letter from AKIS CB

Deliverable D2.6 – 9 Letter of support signed by AKIS Coordination Bodies from Member states

Soil-X-Change

Dear Soil-X-Change coordinator,

On behalf of the _____ (name of the National AKIS Coordination Body), I hereby confirm our full support for engagement and set-up cooperation with project “Fostering cross-border knowledge exchange and co-creation on sustainable soil and farm management” (Soil-X-Change), financed within the topic: HORIZON-CL6-2023-GOVERNANCE-01-18 under Horizon Europe Programme.

We are aware of the content of Soil-X-Change project and its goals and consider it beneficial for farmers and agricultural activities in our country and EU and it's in line with aim of AKIS to disseminate knowledge and innovations throughout(MS name). Our cooperation will lead to wider knowledge sharing and better acceptance of solutions collected and developed within the Soil-X-Change concerning health of soils.

During our cooperation AKIS CB and Soil-X-Change project will jointly identify mutual needs and problems, and together with good will try to find solutions to accelerate sustainable soil management practices adoption on farms.

_____ (name of project Soil-X-Change partner) is a key actor in the _____ (country name) Agricultural Knowledge and Innovation System (AKIS) and _____ (name of Soil-X-Change project partner) is valuable partner for AKIS in the field of health soil issues.

We believe that Soil-X-Change project will contribute in positive way and we are looking forward disseminating Soil-X-Change project results that are beneficial for farmers and soil health.

Signature and Stamp

First Name, Last Name

Position

Date

Signature and Stamp

First Name, Last Name

Position

Date

