



Soil-X-Change Dashboard – User Manual

1. Introduction

1.1 Purpose of the Dashboard and the User Manual

The Soil-X-Change Dashboard is an interactive, web-based tool designed to make complex information about sustainable soil and farm management practices easy to understand and explore. It presents documented good practices collected from European Innovation Partnership Operational Groups (EIP-OGs), related initiatives, and published research findings from partner projects, visualizing the measured effects of these management practices on soil, crop, environmental and economic parameters. Through simple filters and visual tools, users can discover tested solutions, compare their impacts, and open detailed fact sheets to help identify practices that best fit their conditions.

The purpose of this manual is to provide a practical overview of the dashboard's two main modules and to explain in a step-by-step way, how to use them effectively. It also includes short notes on interpreting charts, accessing detailed practice fact sheets, and troubleshooting common issues.

1.2 Target Users

The dashboard is open and free to use. It has been designed for a broad community of stakeholders:

- Farmers and farm managers – exploring field-tested, practical soil management methods.
- Advisors and extension services – identifying practices to recommend to clients.
- Researchers and students – analysing relationships between practices and outcomes.
- Policy makers and organisations – obtaining evidence to support sustainable farming policies.

1.3 Access and Technical Requirements

- The dashboard is publicly accessible through the project website: <https://soil-x-change.eu> (*Dashboard menu*), which directly links to the dashboard interface at <https://quic.hu/dashboard>. No registration or login required. A feedback form and the full user manual (PDF) are linked at the top of the dashboard page, and the interface language can be changed in the language menu in the top-right corner (English, Slovenčina, Magyar, Français, Deutsch, Italiano, Español, Polski, Slovenščina, Български, Lietuvių).
- Optimized for desktop browsers (Chrome, Firefox, Edge, Safari).
- Responsive layout but best viewed on larger screens.
- Requires only an internet connection, no installation is needed.

2. Dashboard Overview

The **Soil-X-Change Dashboard** brings together data and knowledge from 66 documented good practices in sustainable soil and crop management across Europe.





It enables users to explore, compare, and interpret practical experiences collected from real-life farm experiments and Operational Groups. The platform consists of **two main functional blocks**, each focusing on a different way to access and understand this information.

I. Practice Explorer

Discover and analyse sustainable management practices and their effects.

Users can browse and filter documented good practices by various criteria such as climate zone, country or crop, and visualise their qualitative effects on agronomic, environmental, and economic properties.

II. Comparison Chart

Compare the impact of different soil and crop management practices.

This module allows users to select two practices and compare them side by side based on several agronomic or environmental effects.

3. Practice Explorer in detail

3.1 Purpose and Function

The Practice Explorer is the core section of the Dashboard. It allows users to explore and visualise data from 66 documented good practices across Europe. By applying multiple filters, users can focus on practices relevant to their own climate conditions and crop types, and examine their qualitative impacts on key parameters such as biodiversity, soil fertility, erosion control, yield stability or profitability. For every selected practice it also provides a photo, a practice abstract, step-by-step implementation (adaptation) guidelines and the PDF fact sheets in several languages.

3.2 Step-by-Step User Guide to the Practice Explorer

Step 1 – Select a Category of Good Practice (mandatory)

The first filter to be applied is the category of good practice. Choose a category that fits your interest (e.g. erosion control, soil fertility, precision agriculture). This helps to identify practices that are relevant in your case. The dashboard currently offers eight categories, ranging from agroecological

Soil-X-Change

Change it – Sustainable Soil and Agricultural Management

Introducing new cultivation technologies can significantly improve soil quality, optimize water management, and have a major impact on expected yields.

Select your current and newly examined cultivation method to see what kind of transformation you can achieve.

CATEGORY OF GOOD PRACTICE

Crop diversification and intercropping

Agroecological and regenerative soil practices

Crop diversification and intercropping

Grazing and livestock integration

Precision agriculture and digital tools

Soil fertility and organic amendments

Tillage and soil structure improvement

Water management and irrigation efficiency

Erosion Control

Select Climate Zone

CROP TYPE

Select Crop Types

COUNTRIES

Select country



and regenerative soil practices to water management and irrigation efficiency. Once a category is chosen, all of its practices are selected automatically, the optional filters are pre-filled with the climate zones, crop types and countries that occur in that selection, and the map of Europe beside the filters highlights the countries concerned.

Step 2 – Select Good Practice (mandatory, but can also be done after the other filters selected)

After applying the chosen category, a list of available good practices will appear. You can select one or several practices for analysis. This choice forms the basis of the graphs displayed below in the “Select Impacts” part. Select the practices you are interested in, or narrow down the list with the other filters.

CATEGORY OF GOOD PRACTICE *

Crop diversification and intercropping

GOOD PRACTICE *

Intercropping and reduced soil intervention to ensure microbial diversity in the soil and its functions for climate-friendly and resource-efficient arable farming

Organic no-till soybean or maize

Living mulch in vegetable production

Cover crops in cereal cultivation

Innovative sowing and fertilization of hemp

Intercropping of fruit trees, fruit bushes and flowers in sustainable soil and environmental management

Bi-crops sowing of cereals together with nitrogen-fixing plants (legumes, clovers)

Innovative radish

Sowing cross strips in maize cultivation

Mixed cropping in maize cultivation

Strip cropping

Clear all filters

Step 3 – Apply Other Filters (optional)

Refine or narrow your search using one or more of the other filters: Climate Zone, Crop type and Country. You can also type a practice or category name into the “Search good practices and categories...” box below the filters; matching entries are suggested as you type. Please keep in mind that only 66 practices are currently included, so certain filter combinations may return no results. Any combination will work, but once you select e.g. a specific climate zone, the other filter will automatically display only the options available within that zone.





CATEGORY OF GOOD PRACTICE *

Crop diversification and intercropping

GOOD PRACTICE *

Intercropping and reduced soil intervention to ensure microbial diversity in the soil and its functions for climate-friendly and resource-efficient arable farming

Organic no-till soybean or maize

Innovative sowing and fertilization of hemp

Optional Filters

CLIMATE ZONE (PRECIPITATION)

500-600 mm

600-700 mm

CROP TYPE

wheat, barley, corn, sunflower, other

Winter wheat / Cover Crops / Maize

wheat, rapeseed, corn

COUNTRIES

Austria

Poland



Clear all filters

Step 4 – Explore Effects

After you have selected the good practices, the section below will be active. If you have links in the Detailed description of selected good practices, then the selection above was ok.

Detailed description of selected good practices (pdf)

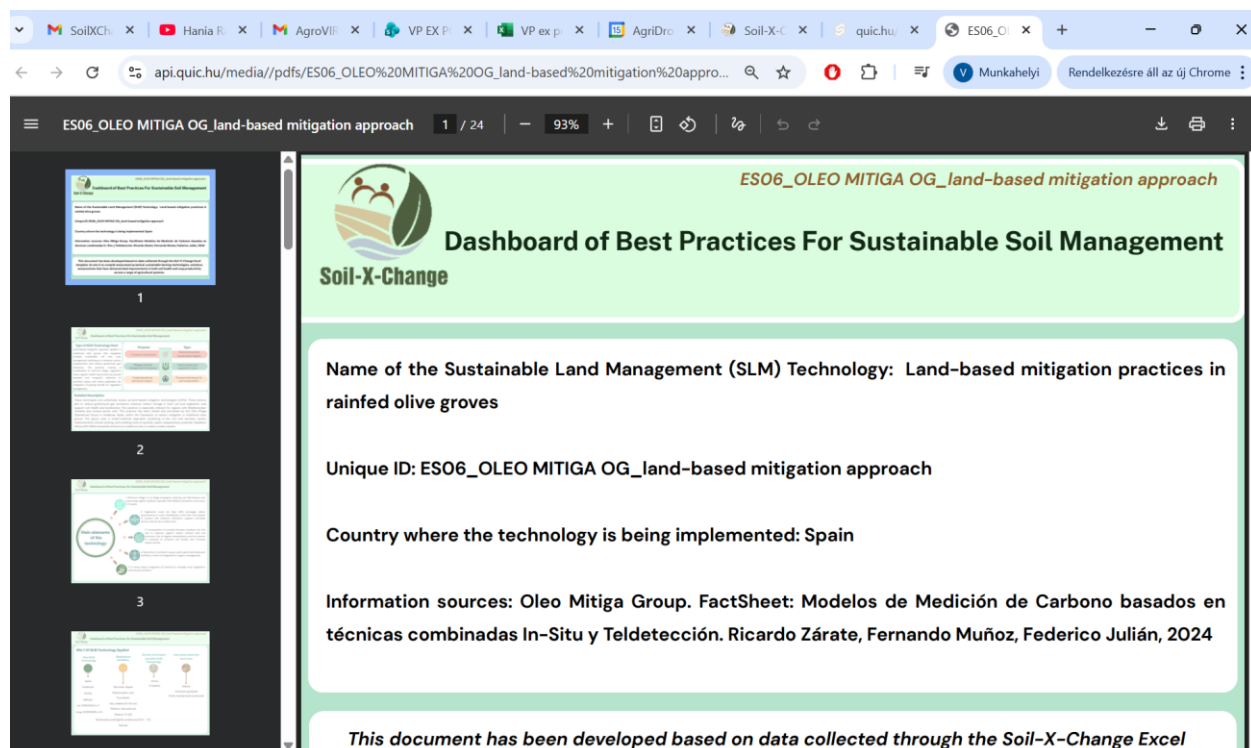
- [1. PL06_Stobrawa_Intercropping](#)
- [2. IT07_IESS_cover_crops_cereal_cultivation](#)
- [3. AT04_ARGE_KliWa](#)
- [4. AT08_ARGE_Biomais_Einsatz_von_Querstreifen](#)

These links are driving you to complete infographics of the OG (or good practice) in a separate tab (below is an example). Each documented practice has an associated fact sheet, accessible through links below the main chart. These PDFs provide summaries of the practice and its observed benefits, limitations, as well as contextual data. Below the chart, each selected practice is shown as a card





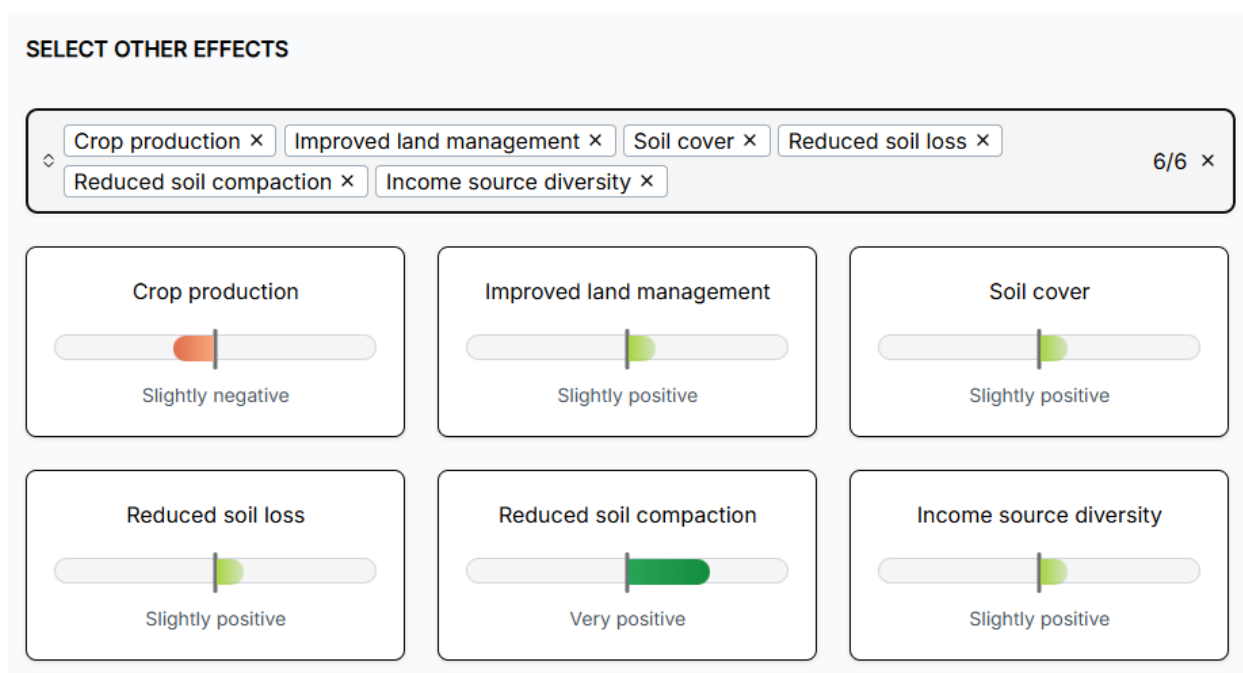
with a photo, its title, an “Available PDFs” drop-down, a practice abstract and a “How to implement” part with numbered adaptation guidelines. The drop-down lists the fact sheet in up to 11 languages (English, Deutsch, Español, Français, Italiano, Lietuvių, Magyar, Polski, Slovenčina, Slovenščina, Български); click a language to open the PDF.



3.3 Interpreting the Charts and Scales

The other activated section is the one where you can investigate the effect of the selected good practices (OGs). You can select up to 6 effects, which are averaged out through the selected practices. The average qualitative results are displayed using sliders and color-coded scales. Each effect is represented by a normalized qualitative scale:

- Green shades indicate positive impacts (e.g., 'better' or 'much better').
- Red shades indicate negative impacts.
- Grey or neutral colours show no recorded effect or insufficient data. Effects are chosen from the “Select up to 6 Effects” list (you can type to search it); a counter (e.g. 2/6) shows how many are selected and the × button clears them. Each effect is shown on a slider with a text label such as “Very positive” or “Negligible impact”.



3.4 Tips and Common Issues

- Some filters may return no results because only 66 practices are currently documented.
- Multi-choice filters work best when used progressively.
- Missing effect data will result in empty chart fields.
- To start a new search or analysis, click on the **“Clear all filters”** button that clears all filters and reloads the full set of practices (the effects chosen under “Select Impacts” stay selected), or simply refresh the page (press **F5** or use the **Refresh** button) in your browser.

4. Comparison Chart in detail

4.1 Purpose and Use Cases

The Comparison Chart enables users to evaluate two selected practices side by side, comparing up to six effects to identify performance differences. Please note that missing values are common in the database so not all effects will have entries for both practices.

4.2 Step-by-Step User Guide

Step 1 – Select Two Practices

Select Technology category, which refers to the Category of the Practices, then choose the two practices you are planning to compare. Technology 1 and its practice are shown in green, Technology 2 and its practice in amber.



Step 2 – Choose Effects

Select up to six parameters or effects to compare.

Step 3 – View Comparison Chart

The grouped bar chart displays relative qualitative impacts of both practices across the chosen effects. Hover over a bar to see its values. The vertical axis uses the same qualitative scale as the Practice Explorer, from Neutral through Negligible impact, Slightly positive and Positive to Very positive.

