### TARGET STAKEHOLDERS







# SOIL MOISTURE IS CAUSING PROBLEMS

Researchers are looking at ways to quickly and easily analyze soil directly in the field using a method called VNIR-SWIR. However, the moisture in the soil can affect the accuracy of this method.



## **TESTING IS KEY**

They propose testing various techniques to remove soil moisture from data, using a diverse European soil dataset. They aim to assess these methods under different conditions and improve remote sensing to address moisture effects.



## SO(I)LUTIONS ARE ON THE WAY!

The current ProbeField project is working on these issues, including testing methods to remove moisture from soil data and developing better calibration models for field measurements.



Maria Knadel, Fabio Castaldi, Roberto Barbetti, Eyal Ben Dor, Asa Gholizadeh, Romina Lorenzetti (2022)

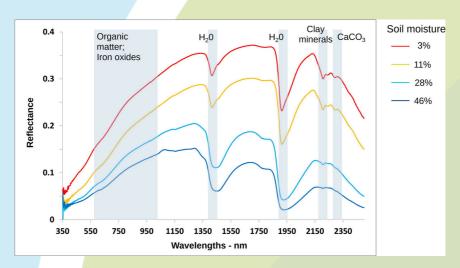
# NO "ONE-TECHNIQUE-FITS-ALL": MORE THAN ONE TECHNIQUE SHOULD BE USED FOR SOUND DATA ANALYSIS



## **Data from above**

There is a need to analyze soil efficiently in the field using visible—near-infrared and shortwave-infrared (VNIR-SWIR), but soil moisture can impact the accuracy of these estimates. Therefore, the testing of methods to remove moisture from soil data and improving remote sensing techniques to address this issue are required.

# 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 PROBEFIELD

ProbeField aims to develop a novel protocol for robust in field monitoring of carbon stocks and soil fertility based on proximal sensors and existing soil spectral libraries.

#### **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.

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

**HIGHLIGHT FACTS FROM:** 

EJP SOIL funded project: ProbeField



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

