varda
FOUNDATION

SoilHive Open Source Public Launch

Thursday, August 20th, 2026

SESSION 01 · 1:00–1:10 PM

Welcome & Webinar Framing

SS

Simone Sala

Executive Director, Varda Foundation

Today's Agenda

1:00–1:10 **Welcome and webinar framing**
Simone Sala, Varda Foundation

1:10–1:15 **Institutional opening**
Ingvild Langhus, NORAD

1:15–1:20 **Project overview**
Leigh Winowiecki, Landscape Alliance (CIFOR-ICRAF)

1:20–1:35 **SoilHive becomes open source**
Roberto Prato (Varda) & Christer Gundersen (NORAD)

1:35–1:55 **Live demo of the SoilHive Open Source node**
Alessandra Scordino, Varda Foundation

1:55–2:10 **Q&A**
Open floor

2:10–2:25 **Panel: Expanding national digital capabilities**
National partners from Ghana, Malawi, Kenya, Tanzania

2:25–2:45 **Panel: Connecting public and private efforts**
World Bank, AUDA-NEPAD, WFO, Pula, Yara, ETG

2:45–2:50 **How to get involved: adoption pathways**
Simone Sala, Varda Foundation

2:50–2:55 **Closing remarks**
Ingvild Langhus, NORAD

About Varda Foundation

Enabling the future of sustainable agriculture

2021
The Beginning

Varda was established as a **venture startup** by Yara International with the mission of harnessing big data to accelerate the transition towards a nature-positive food system

2022/2023
Product Development

Development and launch of core digital products to support data sharing and interoperability in agriculture

> **SoilHive,** a global one stop shop for soil data

> **GlobalField ID,** a system that assigns a unique ID to agricultural fields

2025
Non-Profit Foundation

Establishment of Varda as a not-for-profit independent and neutral foundation to steward SoilHive and GFID as digital public goods

What is SoilHive?

A common infrastructure for **soil data** across the ag-food ecosystem

Soil Data Discovery

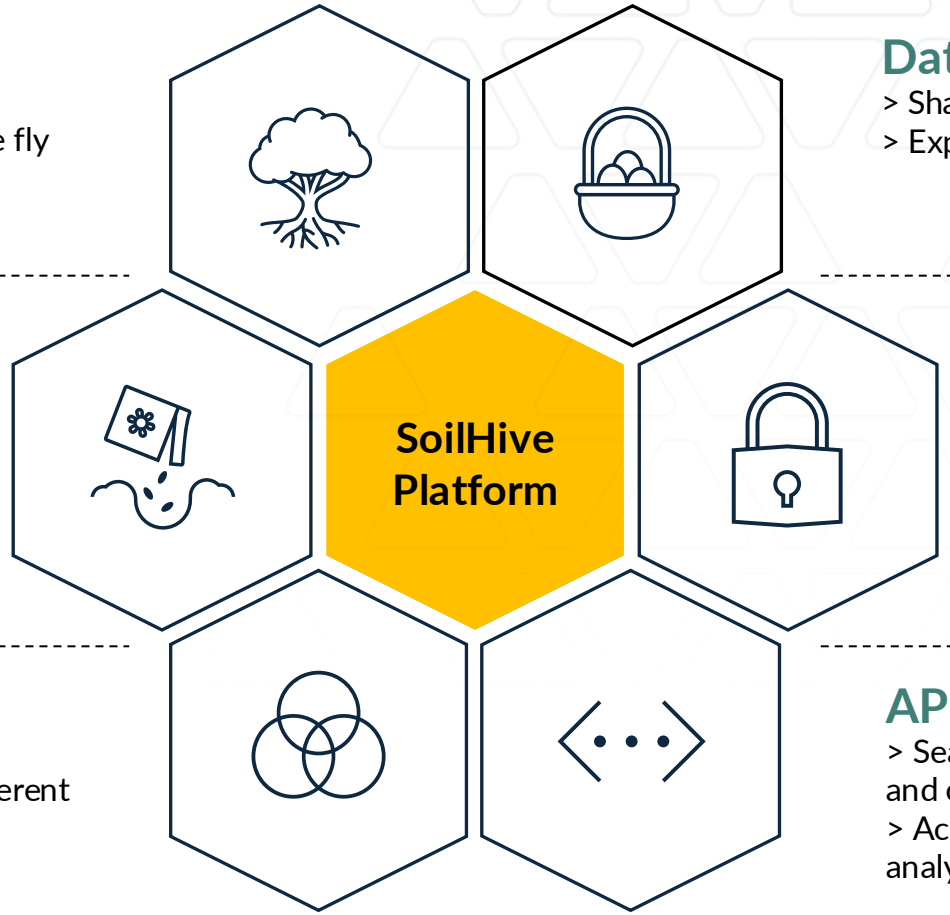
> Access and download soil data instantly
> Retrieve metadata and explore datasets on the fly

Data Gap Analysis

> Assess availability across regions and time
> Avoid duplication by leveraging existing datasets

Comparison

> Validate and cross-check multiple sources
> Analyze variations in soil properties across different locations



Data Sharing and Networking

> Share soil data under customizable licenses
> Expand soil knowledge while increasing visibility

Private Data Hub

> Secure data sharing with authorized users
> Easy discoverability to partners thanks to standardized metadata

API Integration

> Seamless connection with FMIS, AgTech, FinTech and other applications
> Access to structured soil data for AI training and analytics

Donating data to SoilHive

Everyone can donate setting license & key criteria

THE JOURNEY TO SHARE YOUR SOIL DATA

1 · CONTACT

Write to **donate@soilhive.ag** to start the conversation

2 · QUALITY CHECK

Our science team reviews formats, variables and metadata

3 · SIGN T&Cs

Plain-language terms reflecting your sharing choices

4 · CLEANUP & INGESTION

We standardize, validate and integrate your data

5 · PUBLICATION

You're acknowledged when your data is published

SCAN TO KNOW MORE!

SESSION 02 · 1:10–1:15 PM

Institutional Opening

IL

Ingvild Åsta Langhus

Senior Advisor, NORAD

SESSION 03 · 1:15–1:20 PM

Project Overview

Establishing an ecosystem of soil data-driven services

LW

Leigh Winowiecki

The Landscape Alliance (CIFOR-ICRAF) - Global Research Lead, Soil & Land Health

SESSION 04 · 1:20–1:35 PM

SoilHive Becomes Open Source

Federated architecture & data sovereignty

RP

Roberto Prato

Head of Engineering,
Varda Foundation

CG

Christer Gundersen

Senior Adviser, NORAD

Q1

Why was open sourcing SoilHive the right choice to support soil health across Africa and beyond?

Q2

How can we reconcile data privacy while expanding access to data?

SESSION 04 · 1:20–1:35 PM

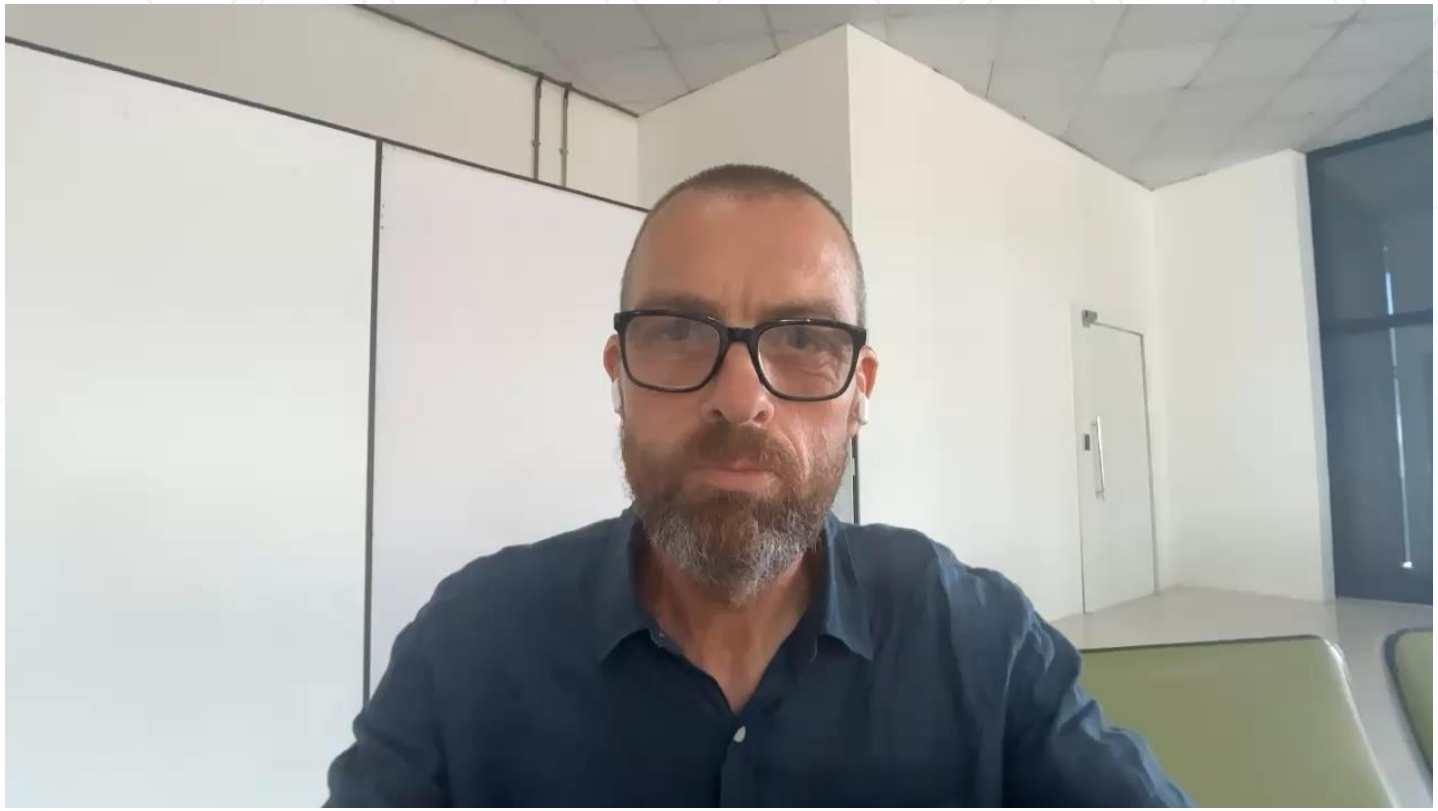
SoilHive Becomes Open Source

NORAD's perspective

CG

Christer Gundersen

Senior Adviser, NORAD



Q1

Why was open sourcing SoilHive the right choice to support soil health across Africa and beyond?

Q2

How can we reconcile data privacy while expanding access to data?

SESSION 04 · 1:20–1:35 PM

SoilHive Becomes Open Source

Varda Foundation's perspective

RP

Roberto Prato

Head of Engineering,
Varda Foundation

Q1

Why was open sourcing SoilHive the right choice to support soil health across Africa and beyond?

Q2

How can we reconcile data privacy while expanding access to data?

SESSION 05 · 1:35–1:55 PM

Live Demo: SoilHive Open Source Node

AS

Alessandra Scordino

Product Manager, Varda Foundation

Question & Answers Session

Please submit your questions
any time via the Zoom Q&A panel

SESSION 07 · 2:10–2:25 PM

Panel 1: Expanding National Digital Capabilities to Improve Soil Health Management

AO

Dr. Alexander Owusu Ansah

Research Scientist
CSIR (Council for Scientific and Industrial Research), Ghana

KE

Mr. Kevin Kiambe

Data Management Lead, ICT & Digital Agriculture
Kenya Agricultural and Livestock Organization (KALRO)

MM

Dr. Moses Munthali

Chief Soil Scientist at DARS
Ministry of Agriculture, Malawi

JM

Eng. Juma O. Mdeke

Director of Land Use Planning and Management
Ministry of Agriculture, Tanzania

Q1 How does open-source SoilHive expand your capacity to manage soil health?

Q2 How does it integrate with your technical or policy infrastructure?

SESSION 08 · 2:25–2:45 PM

Panel 2: Connecting Public and Private Efforts to Advance Soil Health

JG

Dr. Joshua Gill

Senior Economist, Agriculture and Food Global Practice, World Bank

MM

Dr. Manyewu Mutamba

Head of Agriculture
AUDA-NEPAD

AP

Dr. Andrea Porro

Secretary General
World Farmer Organization

AT

Alise Dykstra Thomas

Senior Manager
Pula

DV

Daan Vreeburg

Project Manager,
ETG Climate Solutions

ØB

Øystein Botillen

Director of Strategic Partnerships
Yara International ASA

Panel 2 — Driving Questions

Dr. Joshua Gill · Senior Economist, Agriculture and Food Global Practice, World Bank

The World Bank finances agricultural data systems across dozens of partner governments. How does the Bank actively steer those investments toward open, interoperable standards?

Panel 2 — Driving Questions

Dr. Manyewu Mutamba · Head of Agriculture, AUDA-NEPAD

How does open, interoperable soil data support Africa's own continental agricultural strategies?

Panel 2 — Driving Questions

Dr. Andrea Porro · Secretary General, World Farmer Organization

How do you think that data infrastructures should maximize farm returns while minimizing risks?

Panel 2 — Driving Questions

Alise Dykstra Thomas · Pula, Senior Manager

How does access to open, interoperable soil data infrastructure change what's possible to offer to smallholder farmers?

Panel 2 — Driving Questions

Daan Vreeburg · Project Manager, ETG Climate Solutions

From a commercial perspective, what would an open soil data ecosystem change for sourcing or sustainability reporting?

Panel 2 — Driving Questions

Øystein Botillen · Director of Strategic Partnerships, Yara International ASA

Can you offer an example of how open soil data enabled rural sector transformation for Yara and its partners?

Panel 2 — Group Question

In three years, what would success look like for this open soil data ecosystem?

SESSION 9 · 2:45–2:50 PM

How to Get Involved

Adoption pathways for governments, research, and the private sector

GENERAL INQUIRIES

Partnerships, contributions, or general questions about SoilHive:

info@soilhive.ag

DATA DONATIONS

Donating your data to SoilHive

donate@soilhive.ag

TECHNICAL QUESTIONS

Interested in hosting SoilHive? Submit your questions through our support portal

Scan for the support portal

SESSION 10 · 2:50–2:55 PM

Closing Remarks

IL

Ingvild Åsta Langhus

NORAD

varda
FOUNDATION

THANKS!

The full recording and follow-up materials will be shared after the event.

Varda Foundation
Via Yser, 8
00198 Rome (Italy)

www.varda.ag