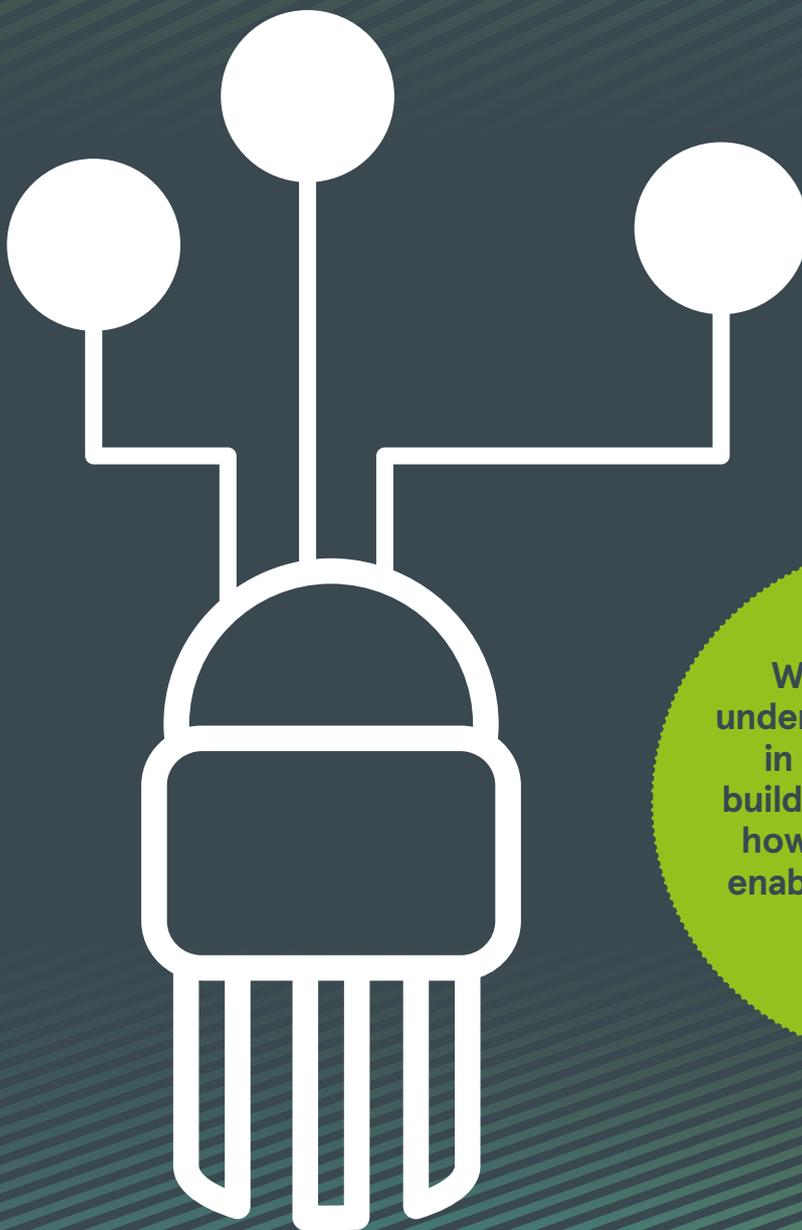


# Soil Scout

## Solution

A patented wireless sub-surface soil monitoring solution for proactive field management



We reveal varying underground conditions in real-time which builds understanding of how soils behave and enables proactive field management

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 @Soil\_Scout

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# Soil Scout Solution

Soil Scout's ground-breaking technology enables the continual monitoring and profiling, regardless of season or conditions, and the tailoring of actions based on the specific conditions of your soil.

Having accurate and real time information about your soil enables better and more timely management decisions, based on facts, not estimates.

In addition, governmental water restrictions are increasing in many parts of the world, as are environmental pressures to be responsible with previous limited water resources.



## The Soil Scout Solution Elements

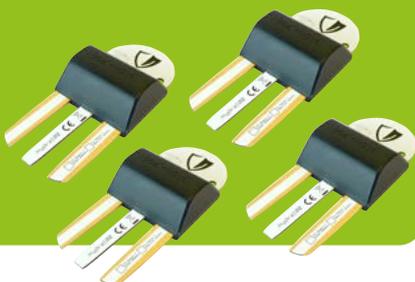
### Hydra Scout

A small, robust, wireless buried sensor that was specifically designed to transmit from up to two metres below ground.

The Hydra Scout measures and transmits raw data to the network hourly for up to 20 years, including:

- Capacitive Moisture
- Temperature
- Electric Conductivity

Proprietary calculus is used to convert raw measurement data to Moisture content, Temperature and Salinity at the Soil Scout Hub Monitoring Service.



### Base Station

Receives the signals from Scouts via a Receiving Antenna and uploads data to the Soil Scout Hub server using a cellular modem.

Typically pole or building mounted, it can provide up to 1,000m range for sensors [1].

The antenna type is chosen according to the specific needs of the site. Each Base Station can handle more than 1,000 Scouts.



### Echo Repeater

When direct transmission to the Base Station is not possible because of distance or topographical barriers, one or more solar powered Echo Repeaters can be used to forward the signal. Range over 5km line of sight.



[1] Underground to air range depends heavily on receiver antenna type and elevation, soil type, topography, vegetation, etc. See [www.soilscout.com/user-guides](http://www.soilscout.com/user-guides) for more guidance on indicative ranges.

# Monitoring Services

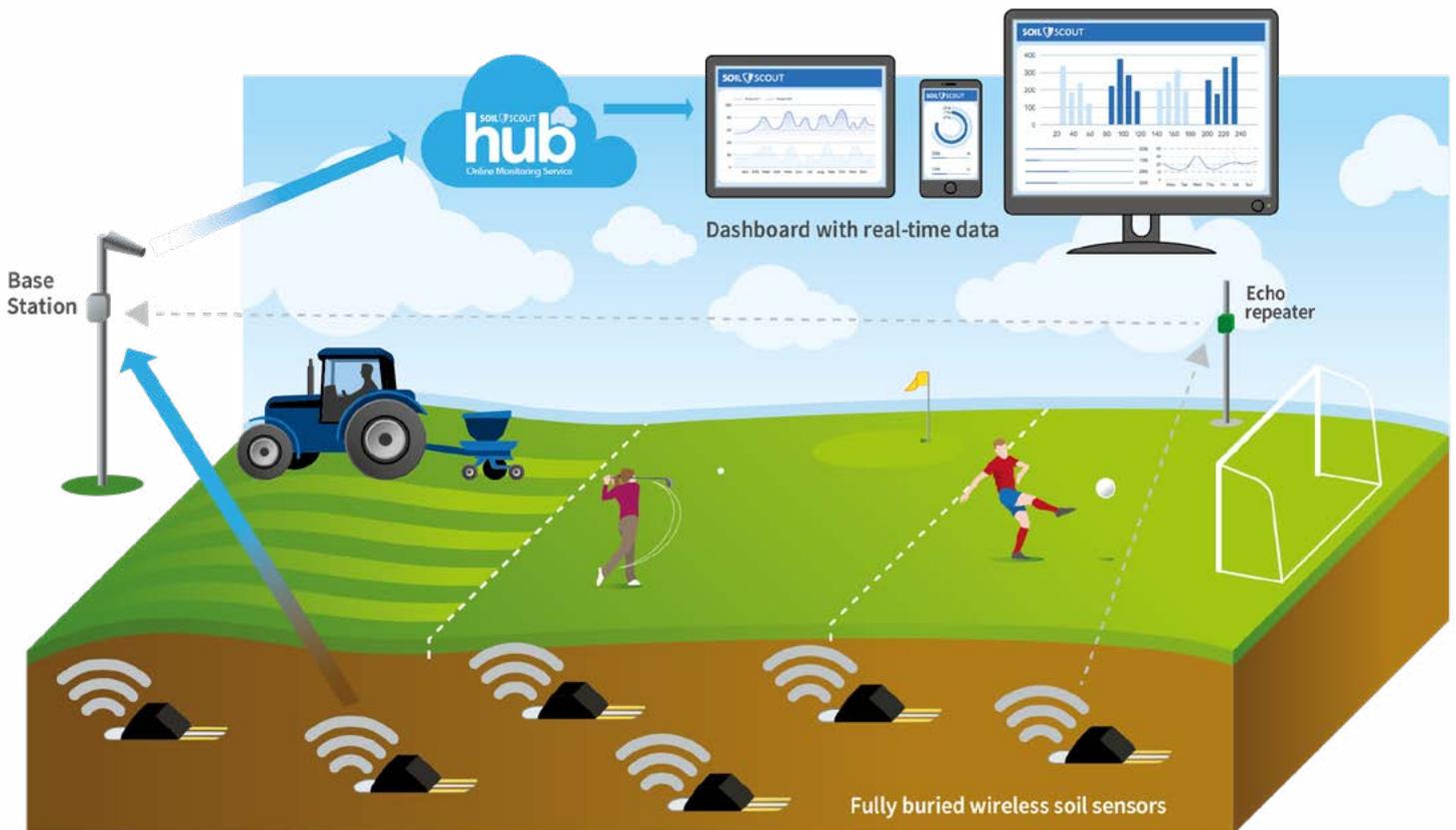
The server performs data validation and applies correction equations to incoming raw measurement packets. The user interface facilitates easy analysis of data and is also the hub for equipment management. Alarm and Notification functionality allows for exception emails, and real-time export of data via a Web Service API can be activated.



Name	Moisture
Deep Scouts	38.81 %
Topsoil Scouts	38.31 %
Yield 1 Top	46.6 %
Yield 1 Under	47.5 %
Yield 2 Top	35.8 %
Yield 2 Under	33.4 %
Yield 3 Top	43.8 %
Yield 3 Under	47.5 %
Yield 4 Top	28.7 %
Yield 4 Under	26.4 %
Yield 5 Top	44.6 %
Yield 5 Under	46.8 %
Yield 6 Top	35.8 %
Yield 6 Under	41.5 %
Yield 7 Top	37.9 %
Yield 7 Under	28.6 %

Screenshots from Soil Scout Monitoring Service indicating the individual sensor data.

## The Soil Scout Cycle



## Easy to expand system



The monitored soil area is easy to expand by simply adding more sensors to the system – no need for complicated pairing, new SIM cards, or data subscriptions.

## 20 years maintenance free



The sensors run up to 20 years below the ground without any maintenance – it's the most cost-efficient solution!

## Measure soil at any depth



Soil Scout sensors can be placed at multiple depths. The patented underground wireless technology is tested for 2 meters (6 feet) below the ground.

# How to find out more

For more information on the Soil Scout solution and to request all relevant pricing options please contact the Soil Scout sales team via email or your nearest reseller.

[sales@soilscout.com](mailto:sales@soilscout.com)

Soil Scout Oy  
Lapinlahdenkatu 16  
00180 Helsinki  
Finland

The **Soil Scout** story....

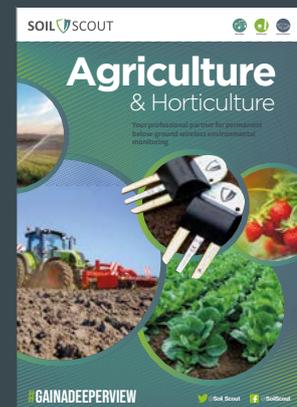
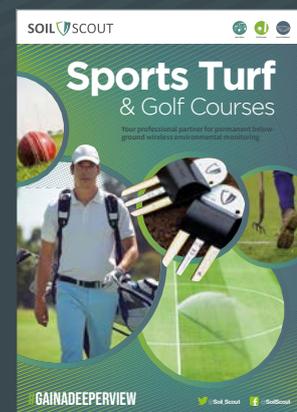
Discover more about the **Soil Scout** solution

View the Soil Scout Agriculture & Horticulture brochure

<https://www.yumpu.com/en/document/read/65083127/soil-scout-agriculture-brochure>

View the Soil Scout Golf Courses and Sports Turf brochure

<https://www.yumpu.com/en/document/read/63557763/soil-scout-sports-turf-brochure>



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