

# SOIL SCOUT

Presentation to

# Golf Courses

*#GainADeeperView*



# SOIL SCOUT

Wireless Underground Sensor Solution

World's first truly  
wireless, underground  
soil condition sensor



**“Having in ground sensors from Soil Scout helps us become more efficient and tells us when and where we need the water most at crucial times”**

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# Why choose Soil Scout?

Understanding what is happening under the ground is  
critical to the sports industry



Current solutions doesn't provide needed dynamics!

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# Every course has variations



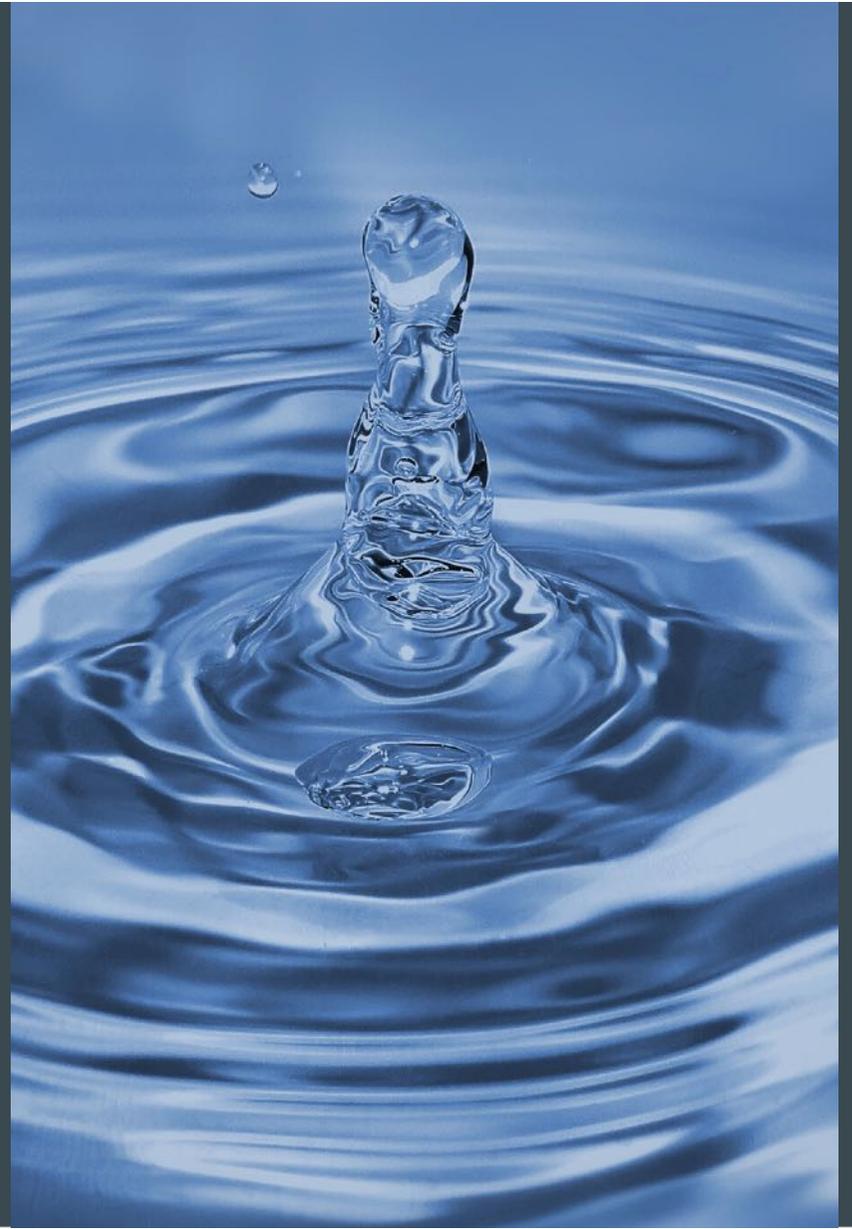
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We waste precious resources!



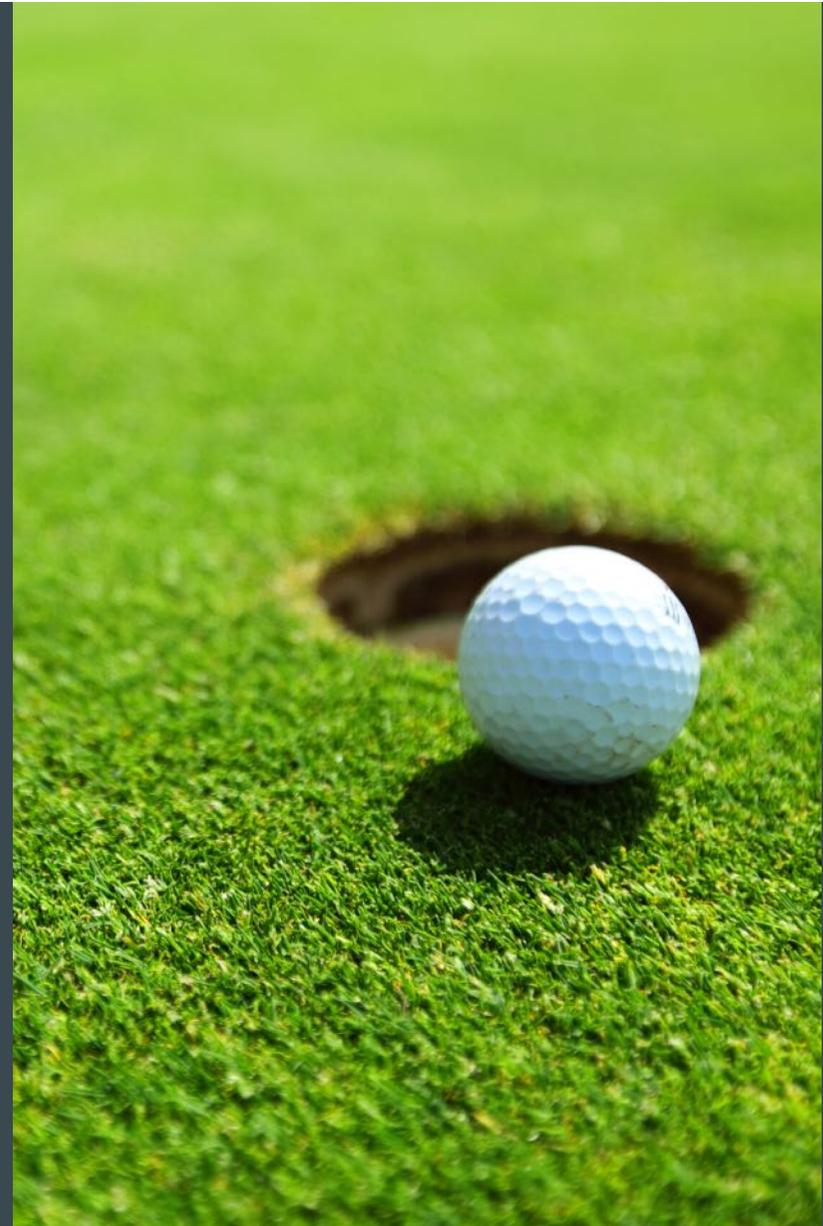
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The golf industry is facing a number of challenges

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# The first fully wireless underground sports turf sensor

Make informed decisions based on accurate and permanent measurements



Soil Moisture



Temperature



Salinity (EC)

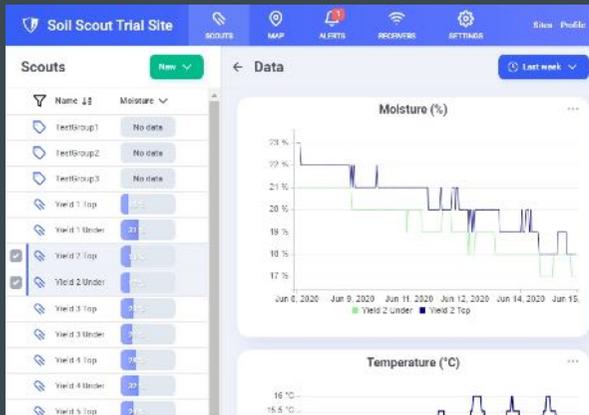


Up to 20 years



OVER 100 SATISFIED  
CUSTOMERS - OVER 1000  
ACTIVE SENSORS

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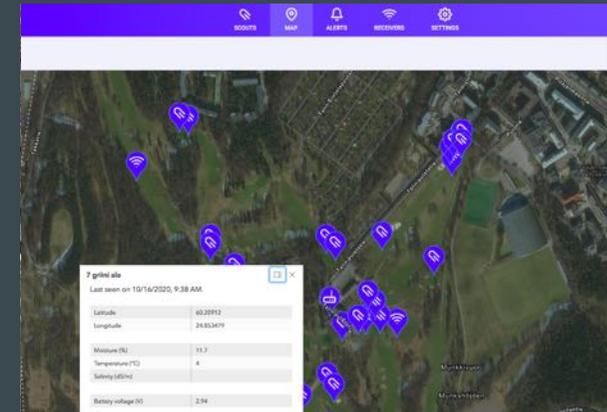
## MONITORING

Detailed real-time view



## ANALYSIS

Make informed decisions based on accurate data



## SHARE

Download and share the data through an API

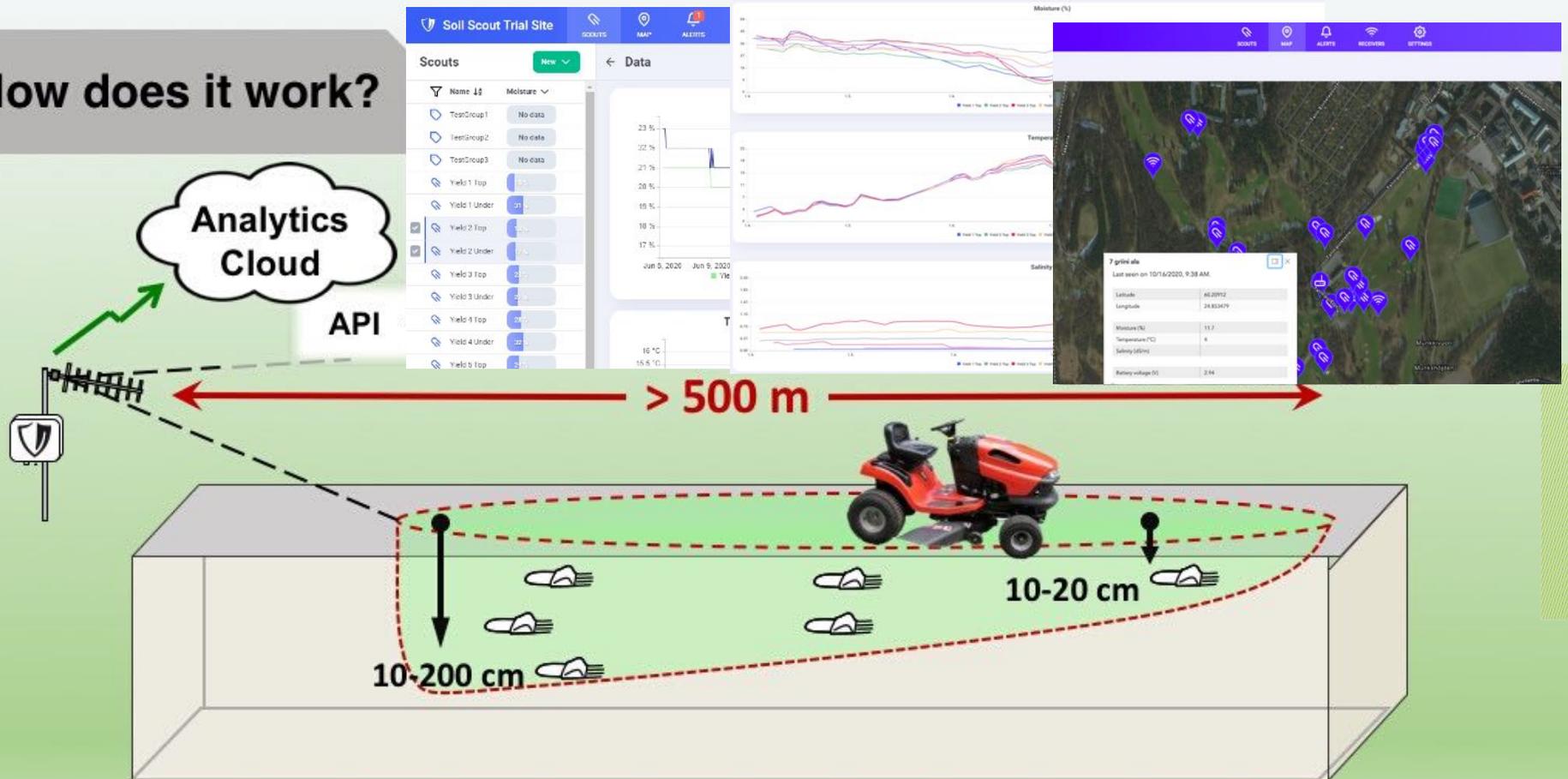


Monitoring Service

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# How does it work?



- Maximum distance between sensors and the receiving antenna vary depending of the antenna height, sensor depth and line of sight
- For more information refer to [www.soilscout.com](http://www.soilscout.com)

# Case Studies

DESERT MOUNTAIN - OUTLAW GOLF COURSE, ARIZONA, USA

*Need for a precise tool to measure daily soil moisture to schedule and optimise irrigation.*

*Solution: 24 Soil Scouts, Base Station, Echo Repeaters and Monitoring Service.*

SINGAPORE ISLAND COUNTRY CLUB, SINGAPORE

*Tropical environment with unpredictable weather patterns combined with high quality needs and limited water consumption.*

*Solution: 140 Soil Scouts throughout the course and integration with Subair Systems.*

MEADOW CLUB - FAIRFAX, CALIFORNIA, USA

*Challenge to maintain turf quality and consistency in high demand environment. Solution: 18 Soil Scouts, Base Station, Echo Repeaters and Monitoring Service with integration to Turfcloud.*

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## Case Study

# A streamlined approach at The Belfry Hotel & Resort

Being able to monitor the various data, can help us become a lot more streamlined with our irrigation usage. Having 56 holes requires a significant amount of water management, so every effort counts. Our water is also recycled city water, so it will be interesting to monitor salinity levels to implement better timings of fertiliser applications.

We are also aiming for GEO accreditation, and having a remote sensor solution like Soil Scout, will help us show evidence that we are cautious with what we do, and also make us more auditable.



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**Angus Macleod**

Director of Golf Courses and Estates at  
The Belfry Hotel & Resort

 @AngusMacleod9

## Case Study

# The Meadow Club Fairfax, California

Upon opening the packaging and viewing the hardware, I loved it, such exceptional build quality. The customisability is amazing, if I want to move them I can, plus the bespoke nature of being able to add sensors, year on year, as budget allows is great. To have a product with radio signal rather than cellular was a big drawer for us, as we don't need to rely on good cellular coverage right across the property, so we can install them where we want rather than where coverage allows.

The whole process from sales to order, then delivery and installation has been simple and straight forward, so it hasn't cost me valuable time at this time of year.



### Kevin Hauschel

Golf Course Superintendent at  
the Meadow Club 1927, Dr. Alister  
Mackenzie's first golf course  
design in the US

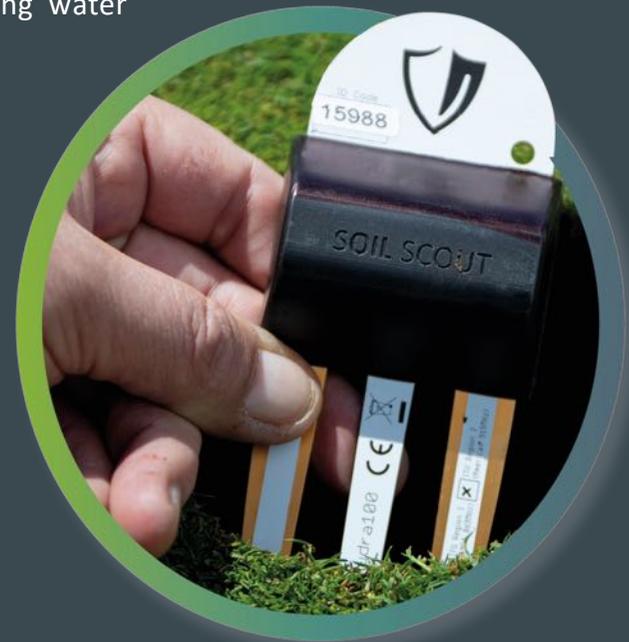
 @KevinHauschel

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## Case Study

Soil Scout allows us to see exactly what impact an irrigation cycle had on the moisture level and we are able to be more efficient in future scheduling by watching the data that we receive from the in ground sensors. It does all that it says it can do and has shown to be another valuable tool in our efforts to produce high quality playing conditions while at the same time using water wiser.

Marc Snyder  
Superintendent  
Outlaw Course, Desert Mountain (AZ, USA)



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# Case Study

Pictures from a recent Soil Scout installation at Winston Links Golf Course in North East Germany.

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# Case Study

Pictures from a recent Soil Scout installation at Winston Links Golf Course in North East Germany.



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# Competition

We compete with few wireless sensors and wired solutions

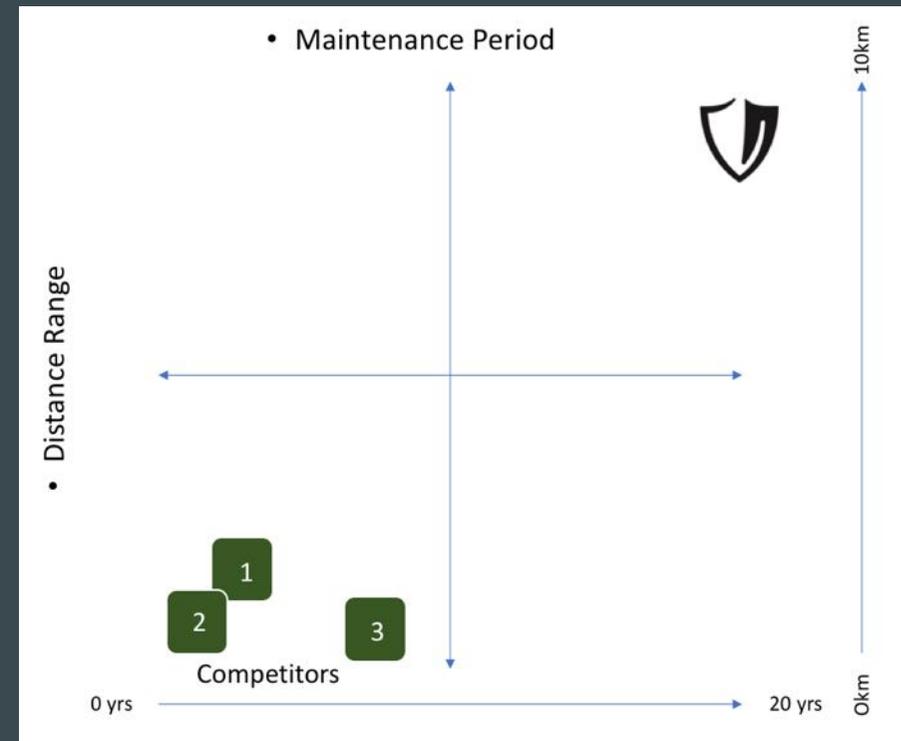
The most significant competitor is 'old habits'

We are patent protected

Soil Scout is the only technology that can reach up to 2m depth wirelessly

# Competitor Comparison

Soil Sensors with above ground wireless repeaters



## Selected Golf References

1. Singapore Island CC, Singapore
2. Brook Hollow GC, TX, USA
3. Sentosa Golf Club, Singapore
4. The Belfry Hotel & Resort, UK
5. Akureyri Golf Course, Iceland
6. Meadow Club, Fairfax CA, USA
7. Helsinki Golf Club, Finland
8. WinstonGOLF, Germany
9. Mississauga Golf, Ontario, Canada
10. St. Laurence Golf, Finland

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# SOIL SCOUT

Unleash the true potential of your course...

## SAVE MONEY

Through optimised irrigation and work planning  
Less fertiliser runoff  
Less manual sampling work



## MAKE MONEY

Optimised soil conditions  
Enhanced playing experience  
Meet the standards



## MAKE IMPACT

Save precious water resources  
Reduced water table pollution  
Less pollution through optimised fertilising



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

Soil Scout was formed through the collaboration of a 19th generation farmer and soil agronomist with a technology specialist, focused on wireless solutions.

The Company has designed, created, patented and commercialised an underground wireless soil monitoring solution.

Our mission is to give soil experts the insights and data they need to manage their lands in the most efficient and effective ways.



**Johannes Tiusanen**

Chief Science Officer, Soil Scout

[#thesoilscoutstory](#)

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