

The logo for Farm21, featuring a stylized plant icon with two leaves above the text "Farm21".

# Farm21

**Affordable and accurate grower insights**



# The Problem

Margins in agriculture are low and continuously under pressure due to suboptimal yields and inefficient use of water, crop protection, fertilizers and labor.





# Current solutions

Due to technological advancements in smart farming, better insights are possible but current solutions are too expensive for optimal use.



# Our solution

A data driven advisory platform combined with an affordable high density sensor network. We are the first to democratize accurate field specific advice for growers.





# The benefit

A better profit for growers by increasing their crop yield and allowing them to save on valuable resources.



Revenue per ha: 15,75K

Expenses fixed: 11.65K

Expen. flex.: 2K

2.1K profit



Revenue per ha: 15K

Expenses fixed: 11.65K

Expen. flex.: 2.25K

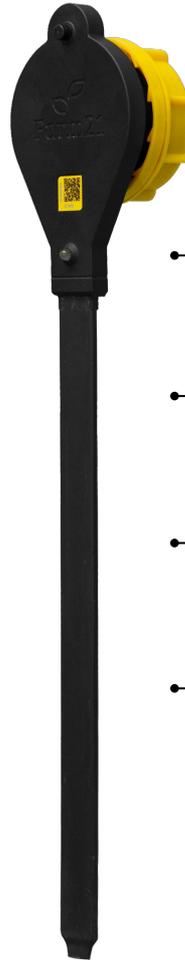
1.1K profit



# Our Sensor

Our field sensor keeps track of the most critical values for growing crops.

The low price of €79 per sensor, makes it profitable to deploy a high density network of sensors.



● **Antenna**

Wireless connection via LoRa. Sends data hourly.

● **Sensors**

Measures air temperature, air humidity at crop level.

● **Battery**

Common battery. Replaceable and will last for at least a year.

● **Sensor**

Measures soil temperature at a depths of 10 cm.

● **Sensors**

Measure soil moisture at three depths.

0-10 cm

10-20 cm

20-30 cm

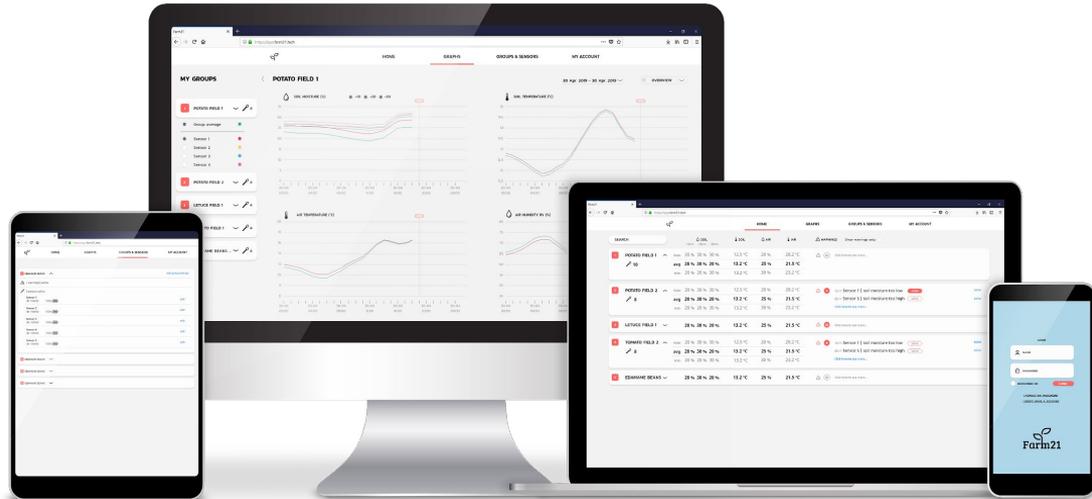


# Farm21 Assistant

The Farm21 Assistant is the core of our solution.

**The Farm21 Assistant provides actionable insights from pre-sowing to post harvest.**

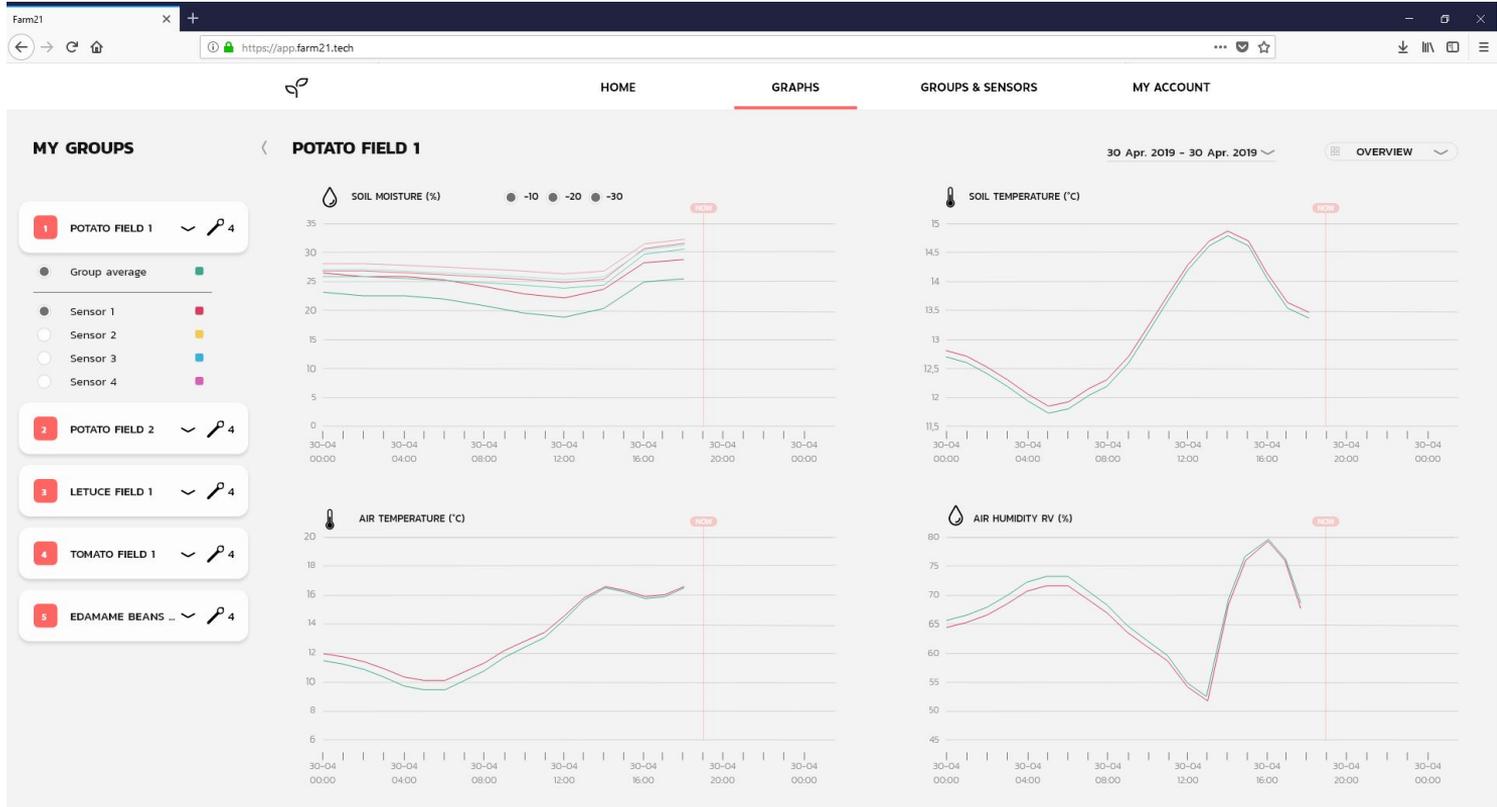
- Sowing time
- Water needs
- Disease pressure
- Optimal crop protection and fertilizer application period and quantity







# Historic data



# Assistant configurator

The screenshot shows a web browser window with the URL `https://app.farm21.tech`. The page has a navigation bar with tabs for HOME, GRAPHS, GROUPS & SENSORS (which is active), and MY ACCOUNT. The main content area is divided into two panels. The left panel shows a summary for the 'EDAMAME BEANS' group, including soil type (Loam clay sand), location (Lettuce - Iceberg), and greenhouse status. It also lists 1 warning and 5 active sensors, each with a 100% battery level. The right panel provides configuration options for the 'EDAMAME BEANS' group, including a text input for the group name and a table of warning settings for SOIL and AIR sensors at various depths and temperatures. A note explains that warnings are triggered when the average value of three consecutive readings reaches the set threshold. At the bottom right, there are 'Cancel' and 'Save changes' buttons.

Farm21

<https://app.farm21.tech>

HOME GRAPHS **GROUPS & SENSORS** MY ACCOUNT

**EDAMAME BEANS**

Loam clay sand

Lettuce - Iceberg

Greenhouse

1 warning(s) active

5 sensors active

**Sensor 1**  
ID: 100050 100%

**Sensor 2**  
ID: 100050 100%

**Sensor 3**  
ID: 100050 100%

**Sensor 4**  
ID: 100050 100%

**Sensor 5**  
ID: 100050 100%

**EDAMAME BEANS**

**EDAMAME BEANS**

**EDAMAME BEANS**

**EDAMAME BEANS**

**EDAMAME BEANS**

Group name Edamame Beans

**Warning settings**

|                                       |       | MIN   | MAX   |
|---------------------------------------|-------|-------|-------|
| <input type="radio"/> SOIL            | -10cm | 100%  | 100%  |
| <input checked="" type="radio"/> SOIL | -20cm | 100%  | 100%  |
| <input type="radio"/> SOIL            | -30cm | 100%  | 100%  |
| <input type="radio"/> SOIL            | SOIL  | 100°C | 100°C |
| <input type="radio"/> AIR             | AIR   | 100%  | 100%  |
| <input type="radio"/> AIR             | AIR   | 100°C | 100°C |

Warnings are trigger when the average value, of three consecutive readings, has reached the set threshold.

[See warning history](#)

Cancel Save changes

15:12  
05/10/2018



# From field to grower

1

Log in

2

Scan QR-code to link sensor to account

3

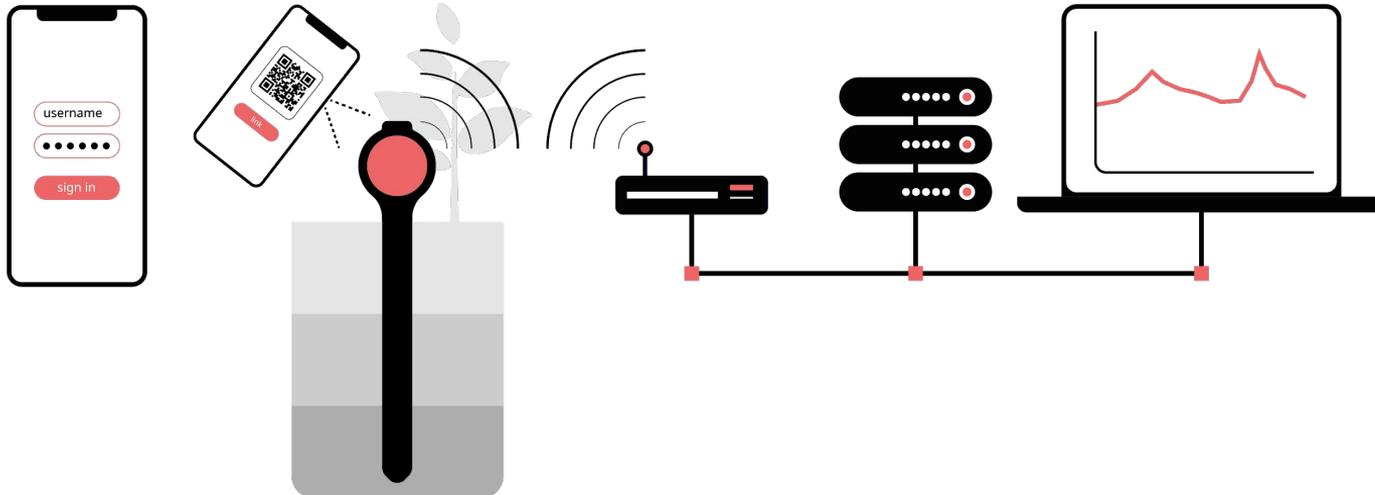
Sensor sends data every hour, which is collected by a LoRa gateway.

4

The data is send to our servers

5

The data is presented in the dashboard





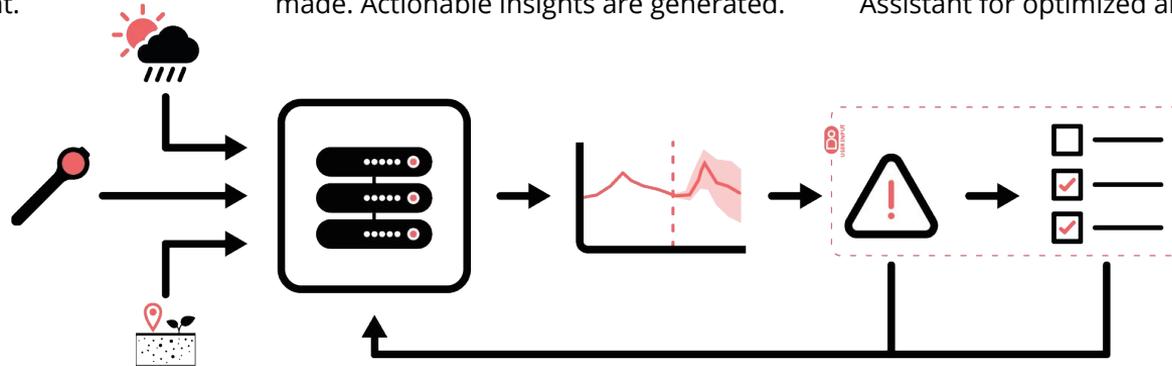
# The feedback loop

Our platform learns from historical data, real time data and growers' actions to support decision making.

1 | Sensor, weather, soil and crop data are inputs for Farm21 Assistant.

2 | Data is analysed and predictions are made. Actionable insights are generated.

3 | All actions are fed back into the Farm21 Assistant for optimized analytics.





# Competition

|  | Device features   | Platform features   | Price (10 devices) | Price platform (10 devices)                |
|--|---|---|--------------------|--|
|  Farm21     |  |  | <€800              | €52,50/month                               |
|  teralytic  |  |  | >€1750             | €250/month + hectare price                 |
|  SENSOTERRA |  |  | >€1000             | €10/month                                  |
|  30MHz      |  |  | €450/month         | €250/month (base price including 1 device) |
|  cropx      |  |  | >€7000             | €250/month                                 |
|  DACOM      |  |  | >€20000            | €75/month                                  |
|  ARABLE     |  |  | >€8000             | €500/month                                 |
|  Sencrop    |  |  | >€8000             | €188/month                                 |



# Competitive Advantage

The combination of the advanced Farm21 platform and affordable sensor technology. We generate millions of datapoint more than any competitor.

## One device

for all measurements

## High resolution

short interval

## Data feedback loop

learning platform that generates actionable insights

## User focussed

designed in co-creation with growers

## 3rd party Integration

API driven platform, that connects with other software or systems

## Affordable

lowest price for the highest amount of features



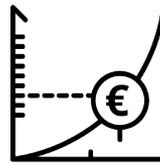
# Our Business Model

We have two revenue streams: sensor sales and the data analytics platform subscription. Our sales price may not be modified by our partners.



## One time

79 EUR  
per sensor



## Recurring

5.25 EUR  
per sensor/month



## Fee for partners

Partners either earn a recurring  
or fixed commission for every sale



# Why become a partner?

- Be **one of the first in your market** to introduce our product and gain a large market share.
- The Farm21 solution has a unique value proposition for end-customers (growers) **and demand** is high.
- **Help the world** save on valuable resources like water, pesticides and fuel.
- Access to our **precision farming knowledge database** (coming soon).
- We **share our revenue** with you.
- Create a **scalable service model** for your business, for example: remote grower support based on platform data for a fixed fee per month.
- **Priority support from our marketing department**, everything you need to sell better.
- Work together with our friendly team of product engineers and developers and **decide the future of farming together**.
- **Integrate** your own solutions with ours to deliver **higher customer value**.



# Partner models

## Silver

Become a reseller of our sensors.  
Order in small batches and distribute them to your clients.

- Fixed discount per sensor
- Order small quantities of 100+ pcs

## Gold

Become a reseller of our full product and services. Provide your clients with data driven advice based and be the first point of contact.

- Recurring commission
- Priority support
- Free viewer accounts (growers can give you access to their data)
- Order quantities 250+ pcs

## Integration

Integrate with our open API to deliver more value to both our customers

- Support from our development team
- Joint marketing



# Partner commission example

The amounts mentioned in this slide are subject to change and are based on a minimum order quantity. They are based on the amount a partner sells.

## *Scenario 1: silver partner*

**Sensors sold:** 500 sensors

**Commission:** €5.000,- one time

**For:** dealers or independent contractors that do not have a direct relation with their customers apart from a sale.

**You are interested in:** selling products to growers, making money on the side and not having to worry about customer support.

## *Scenario 2: gold partner*

**Sensors sold:** 1500

**Commission:** €1.500,- monthly recurring

**For:** crop consulting companies that see or speak their clients on a regular basis and advise on agricultural practices.

**You are interested in:** service model for your business and scalable revenue streams where you are the first point of contact.

Want to become a partner?

Drop an email at [bas@farm21.tech](mailto:bas@farm21.tech) to learn more.



[www.farm21.tech](http://www.farm21.tech)

+31(0) 20 705 1010

+31(0) 6 8152 8215

[thomas@farm21.tech](mailto:thomas@farm21.tech)

Danzigerbocht 39G

1013 AM Amsterdam