



# MODUFARM

Team 9



**Final pitch for**

2024-25 Entrepreneurship, Innovation and Technology Transfer (EITT)



# THE PROBLEM



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# The Problem



Water is wasted. Pesticides are misused. Fertilizer runs off. But most precision farming tools are too complex and expensive for the farmers who need them the most.

These farmers lose up to **30% of crop yield** due to over- or under-irrigation, imprecise fertilization, and inefficient pest control.

70% of Portuguese farms are **small (<5 hectares)** and cannot afford large-scale precision farming systems.

# Market Opportunity



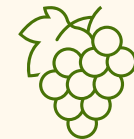
~260.000 farms in Portugal\* | Small/Medium Farms (<20 ha) ~220,000

Small rural and urban producers seek affordable solutions to increase productivity.



Big IoT agri-companies don't operate in Portugal—or when they do, their products are too complex, expensive, and hard for small farmers to understand or buy.

Consumers value sustainability and food origin. Governments and green initiatives support innovation in self-sufficient agriculture.





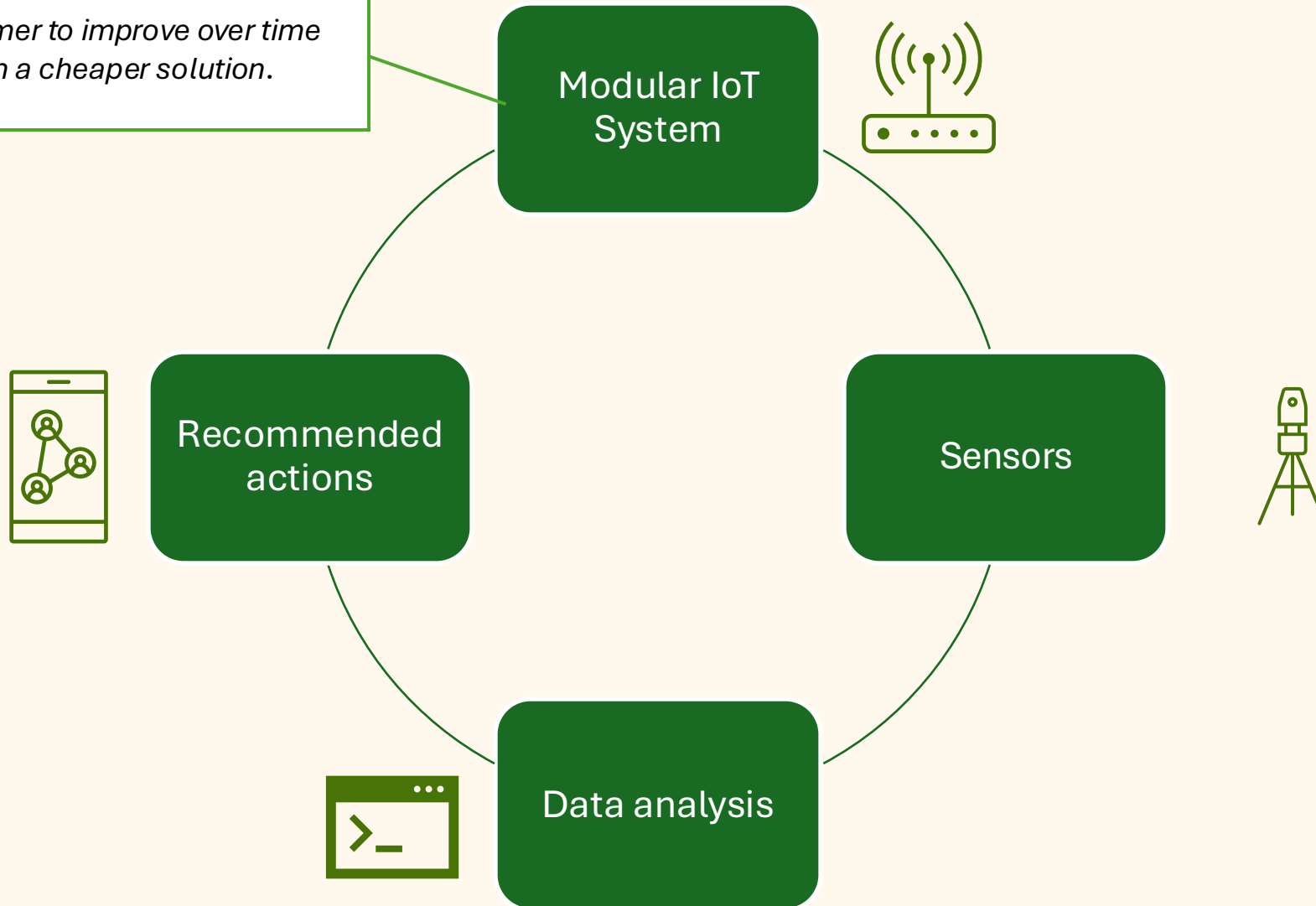
# OUR PRODUCT

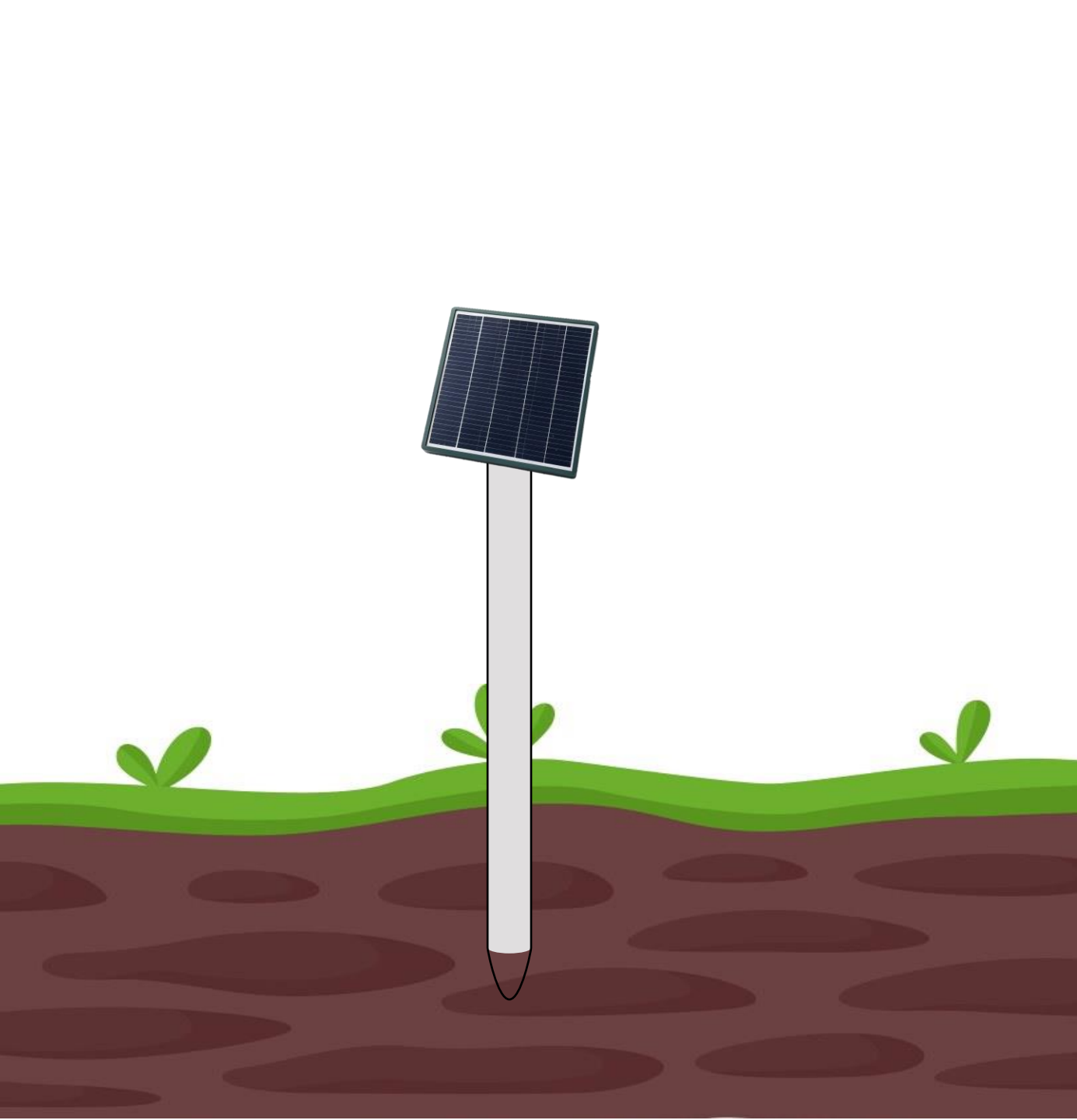


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*Allows the Farmer to improve over time starting with a cheaper solution.*





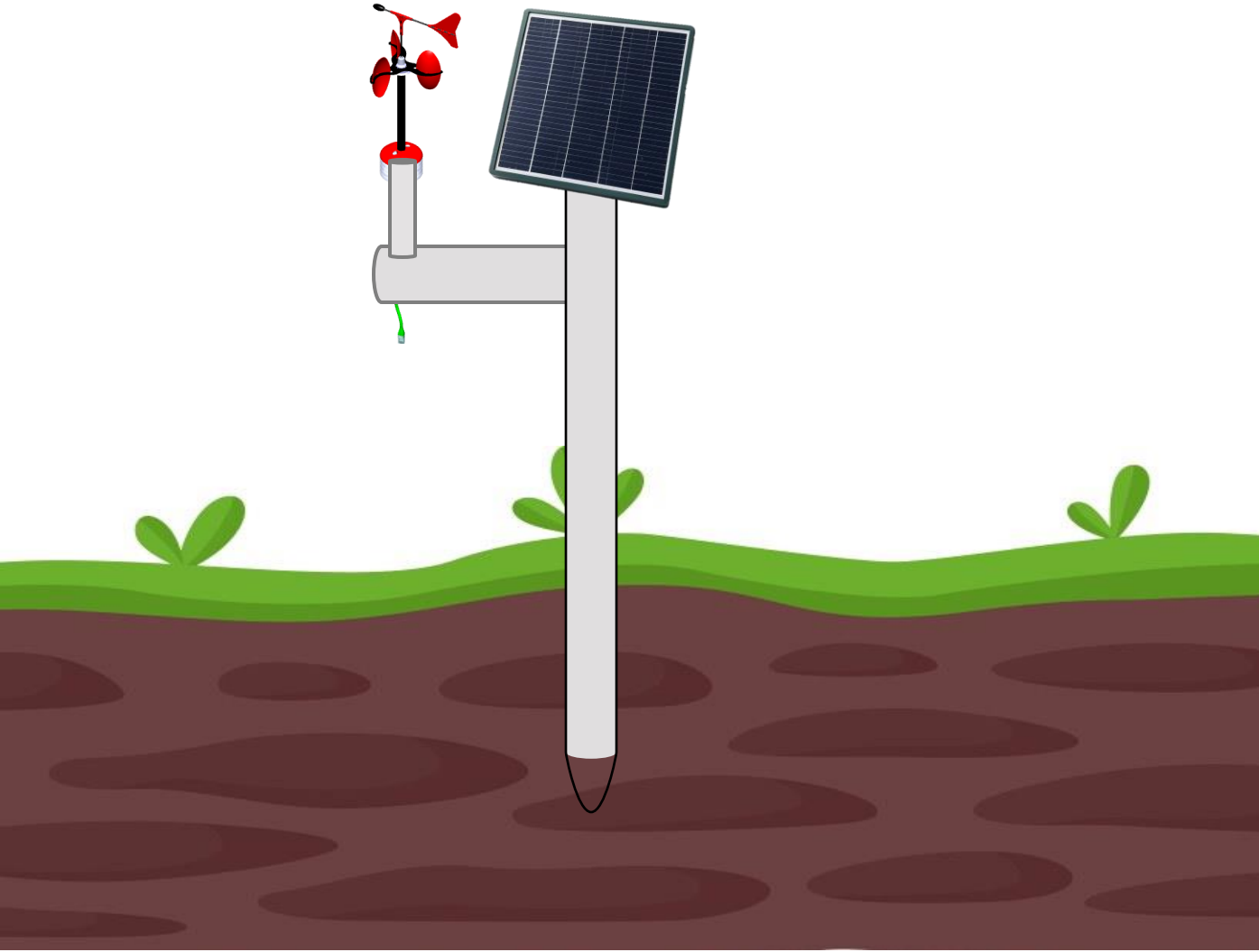
200.00 EUR

## Soil Temperature Soil Moisture Solar Panel IoT Connection

Main Module

The system provides precise, real-time soil data, including soil moisture and temperature, enabling farmers to make informed decisions about irrigation timing. Additionally, it features a built-in communication module using LoRaWAN technology, ensuring reliable long-range data transmission even in remote agricultural areas.

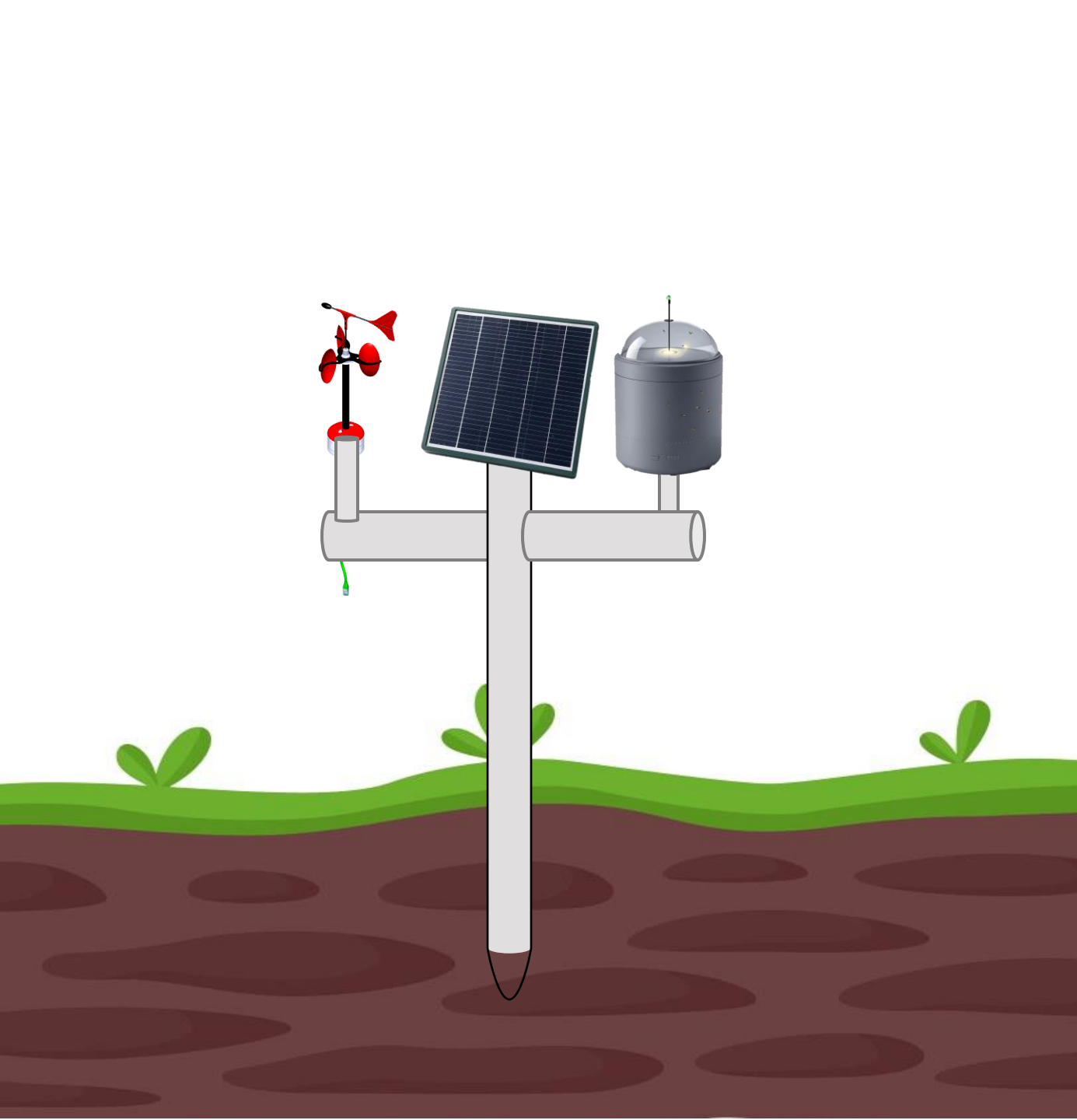
150.00 EUR



Main Module  
Weather Station

Wind Direction/Speed  
Rain  
Humidity

Weather station delivers accurate, real-time microclimate data—such as temperature, humidity, and rainfall—empowering farmers to make informed decisions about irrigation, crop protection, and field management.



250.00 EUR

Main Module  
Weather Station  
Smart Trap

## Smart Trap Camera

Our smart trap is an advanced pest monitoring solution designed to help farmers detect and manage insect populations with precision. Equipped with a camera, it automatically identifies and counts pests in real-time.

# OUR APP

FREE

## Free Plan

Free to use without purchasing any product.

- ✓ 1 User
- ✓ Public Weather Access
- ✓ Register of Farm Info

10 EUR/mon

## Essential Plan

Designed for users that have our main module and 1 farm

- ✓ Microclimate monitoring
- ✓ Connected IoT devices
- ✓ Agronomic recommendations (e.g., "Irrigate today", "Too much sunlight")
- ✓ 1 – 5 Users
- ✓ 1 Main Module

25 EUR/mon

## Professional Plan

Tailored for companies that have multiple main modules and multiple farms

- ✓ Everything included in the Essential Plan
- ✓ View graphs, and performance over time
- ✓ Data export (.CSV, .PDF)
- ✓ AI Image Processing (Smart Trap) for pest detection
- ✓ Anomaly reports
- ✓ > 5 Users
- ✓ Monitor multiple Modules



# BMC



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# BMC – Value, Delivery and Capture

## Create Value

- Develop modular, solar-powered kits for soil monitoring and smart irrigation
- Integrate sensors (moisture, temperature) with mobile interfaces
- Design for non-tech-savvy users

## Deliver Value

- Direct sales via website, agricultural fairs, and garden co-ops
- Retail partnerships with DIY stores and garden centers
- On-site demos and workshops
- Optional training kits and printed guides included in the package

## Capture Value

- Starter kit pricing: €100–€200 based on configuration
- Modular add-ons
- Subscription mobile app with optional upgrades
- Potential partnerships with agri-coops and B2B for bulk sales



## Revenue Streams



Asset sale [Main Module]



Additional asset sale [Optional Modules]



App subscription fee



Advertising of partners products

# Cost Structure



Cloud infrastructure and storage



Website and app maintenance



Team salaries



Legal & admin overhead



Sensor and hardware materials



Manufacturing and shipping



Marketing and sales



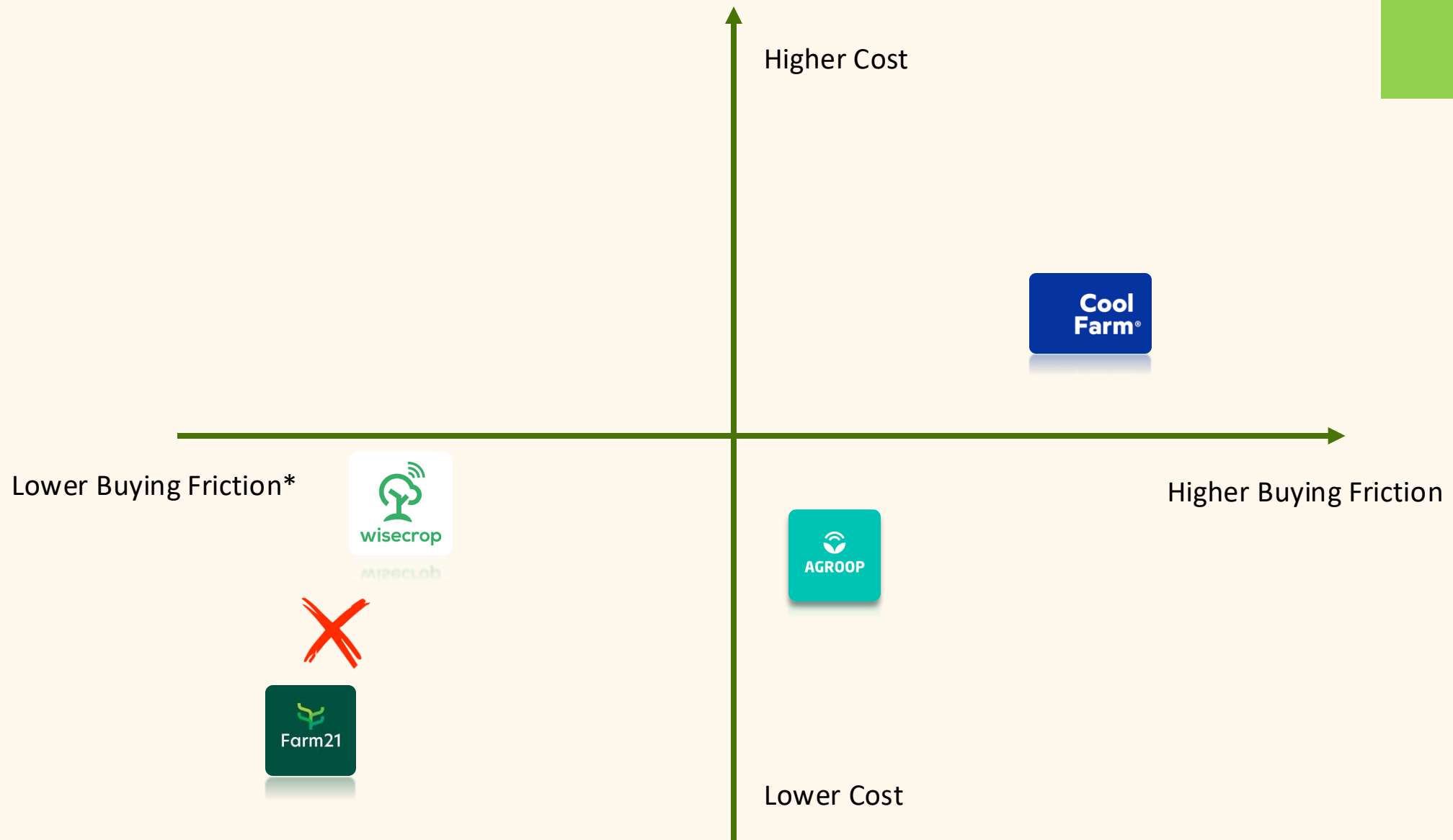
Customer service and support



# COMPETITION MAP

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*\*Buying Friction Reflects the barriers (contact forms, no pricing, no online checkout) .*

*Only Companies that sell products in Portugal were analysed.*



# Competition and Competitive advantage

**Direct competitors:** current smart home farming solutions offering some similar features

**Indirect competitors:** traditional cultivation methods without automation

↓ ↓

**Our product differentiators:** expandable modular design, energy autonomy with solar technology and all-in-one integration

↓

**Sustainable advantage:** difficult-to-copy combination - proprietary IoT technology + digital platform + integrated eco-friendly



# Marketing Strategy and Sales Channels

## Digital content marketing

Active presence on social media  
Blog educating about sustainable agriculture  
Presenting our product use cases

## Social proof and partnerships

Share results from pilot projects and testimonials from early users  
Collaborations with digital influencers

## Direct sales channels

Sales via own website and specialized marketplaces  
Sales in agriculture fairs

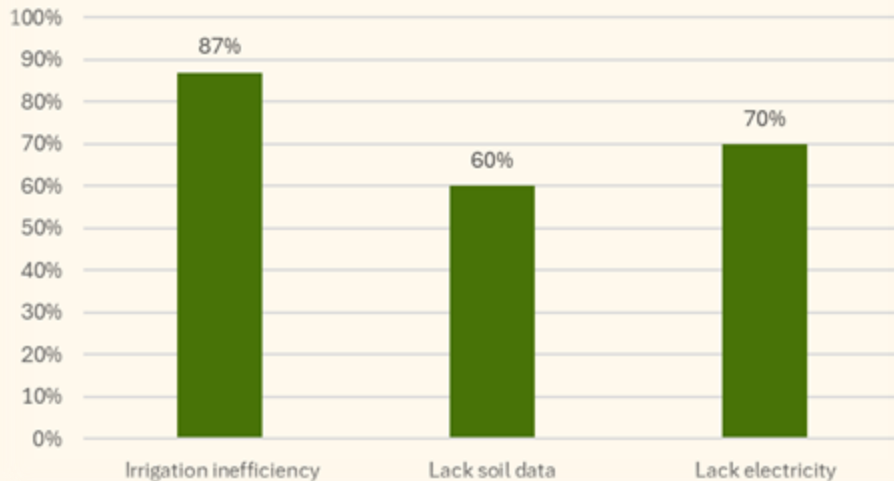
## Indirect channels

Partnerships with agricultural retailers, garden stores and government programmes.  
Implementation of partner shops in our application.



# Validations

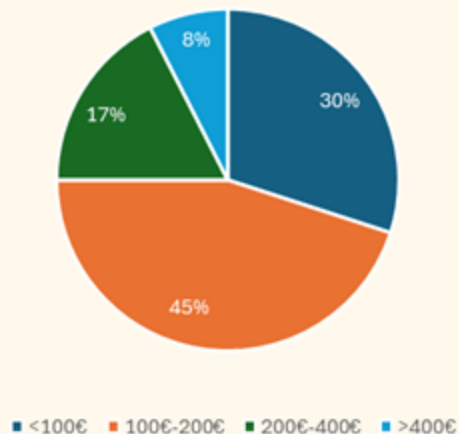
## Common problems



87% face water inefficiency; 70% lack soil data; 60% lack electricity.

80% want solar-powered monitoring; 72% want plug & play systems.

## Maximum budget



75% would buy if it saves water. Most accept €100–€200 price.

“If it tells me when to water, I’d pay for that.”, “I’m not a tech person, but if it is just plug it in, place it, and let it do its job—that’s what I need.”

*20+ interviews with farmers & gardeners validated strong demand.*

# Interviews



Anabela Pascoal  
Environment Engineer



André Miguel  
Agricultural Engineer



Andreia Teixeira  
Master student at ISA



Gonçalo Victorino  
Agrivoltaic Researcher



Marina Mota  
Professor of Horticultura  
Herbácea at ISA



Small/Medium Farmers



# MEET US

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**Gonçalo Baião**

**Manager**

Summer Internship Software  
Fullstack at **SEA.AI**



**Guilherme Santos**

**Engineer**

Android Software developer at  
**Iconic Features**



**Rodrigo Campos**

**Designer**

Helped developing a few  
residential electric  
projects



**Gil Jardim**

**Business Planning**

Engineer at **EnergyPulse**  
**Systems**



**David Gameiro**

**Marketing**

Ex-team member at  
**TLmoto – Powertrain**

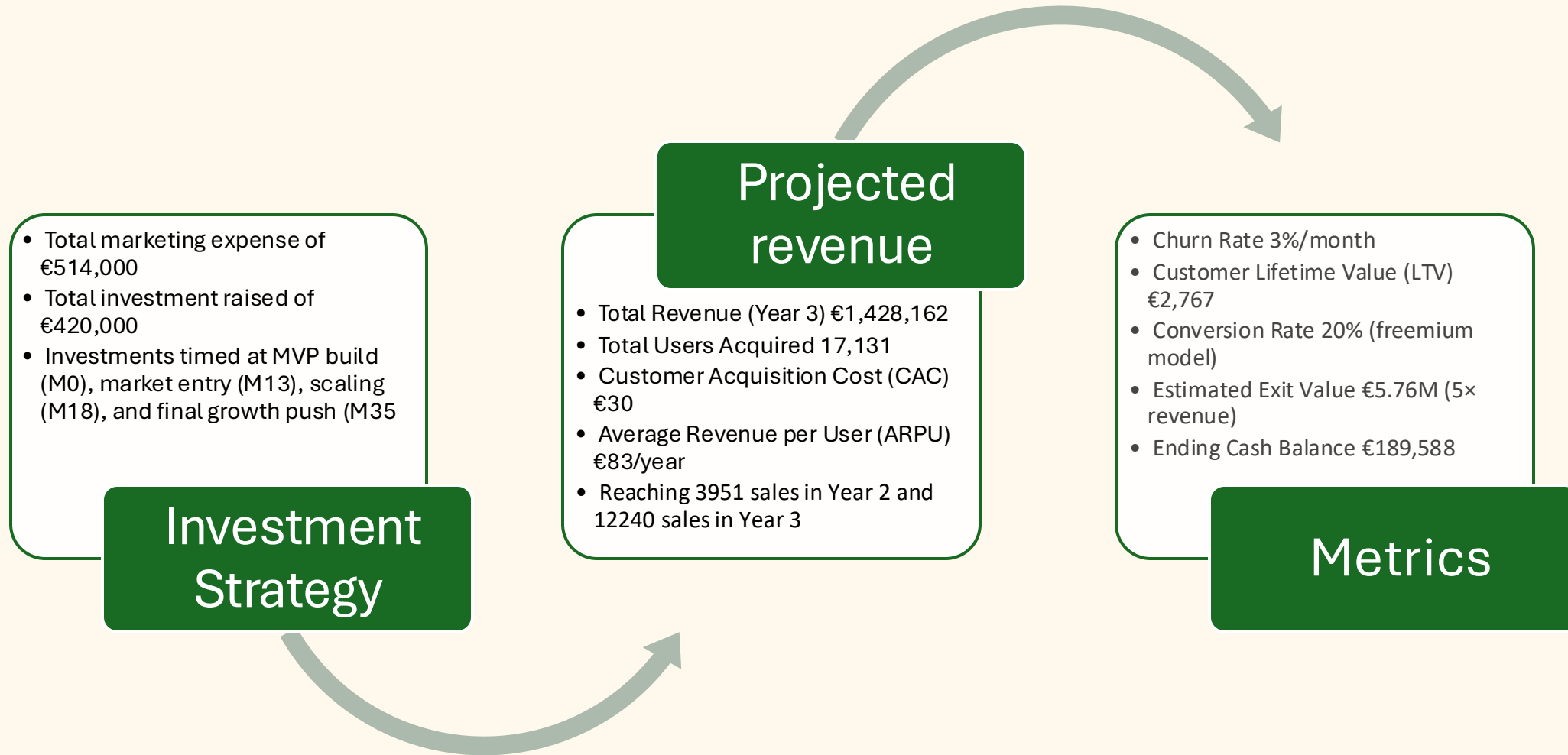


# FINANCIAL

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# Financial Projections



# Assumptions

## Key assumptions

- Fixed CAC (€30) and Churn (3%) throughout
- High LTV/CAC ratio = 92.2, indicating a strong long-term value
- Scalable model: app + hardware with predictable costs
- Staff growth from 5 → 15 by M35, supporting operations, sales, and support
- Assumes consistent user growth and stable product performance

## Profitability

- Break-even expected by end of Year 2.
- Positive EBITDA margin starting Year 3, with increased sales volume and recurring subscription revenue consolidating cash flow



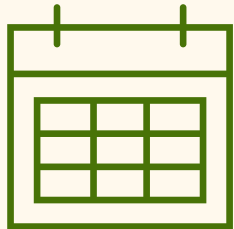
# MILESTONES



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# Milestone Roadmap



*M3: Finalize functional app and module prototype*  
*M5: Conduct pilot testing with initial users*  
*M7: Establish suppliers and prepare for small-scale production*

*0–12 months (Year 1)*

M25: Expand to new markets  
M29: Release new product versions/modules and app updates with new features  
M30: 10k revenue/month  
M35: Structure company for scaling

*25–36 months (Year 3)*

*13–24 months (Year 2)*

M13: Commercial launch in target market (V1.0 launch)  
M14: First actual sales and post-sale support implementation  
M17: Adjust marketing based on market response  
M18: 1k revenue/month





## IN 3 YEARS



10.000 Free Users (Advertising Revenue)



2.000 Farms with our Main Module



150 Farms using Professional Plan



Evaluated In +5.000.000 €



# THANK YOU JOIN US

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