

# DEVELOPMENT OF AGROBUSINESS INNOVATION IN ALGERIA « InnovAgro »

## THE AGRITECH BUSINESS OPPORTUNITIES IN ALGERIA

### AirTree

Autonomous system for pollination, detection and treatment of tree crop diseases.

#### IDEA N°10B

TYPE OF OPPORTUNITY: **Autonomous and intelligent technology**  
(drone equipped with optical recognition, targeted spraying and sensors for disease detection & continuous learning).

#### CHALLENGE:

Fruit trees requiring manual pollination suffer from lengthy, costly and inefficient processes, while disease detection and treatment are often late and inaccurate. These limitations hamper productivity and increase production costs.

#### IMPACT ON THE VALUE CHAIN:

**Upstream** : Reduced costs and improved crop management thanks to automation & Increased yields thanks to precise pollination and processing.

**Downstream** : Increase in the quality and quantity of harvests, improving competitiveness on the market.

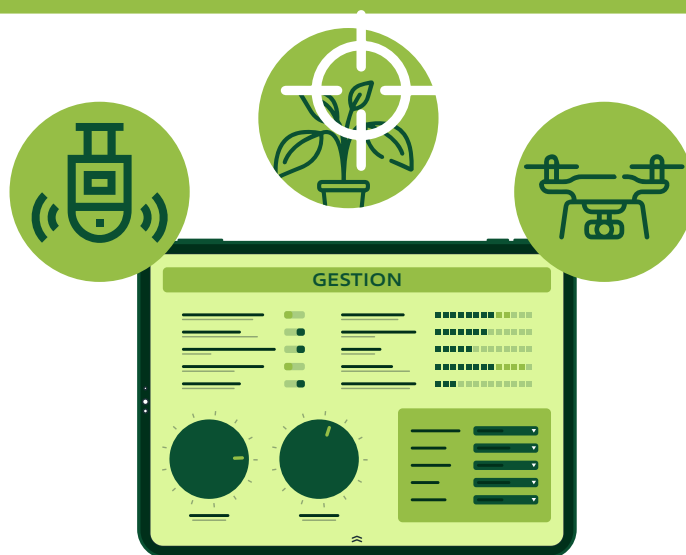
#### SOLUTION:

**Development of a multifunctional system that combines :**

- Autonomous pollination: Use of drones equipped with precision sprayers.
- Disease detection: optical and thematic sensors and cameras capable of identifying early signs of disease.
- Targeted treatment: Application of specific, efficient treatments to affected areas, minimising the use of chemical inputs.
- Centralised management: digital interface for learning about the database and for planning and monitoring operations.

#### BENEFITS OR EXPECTED IMPACT

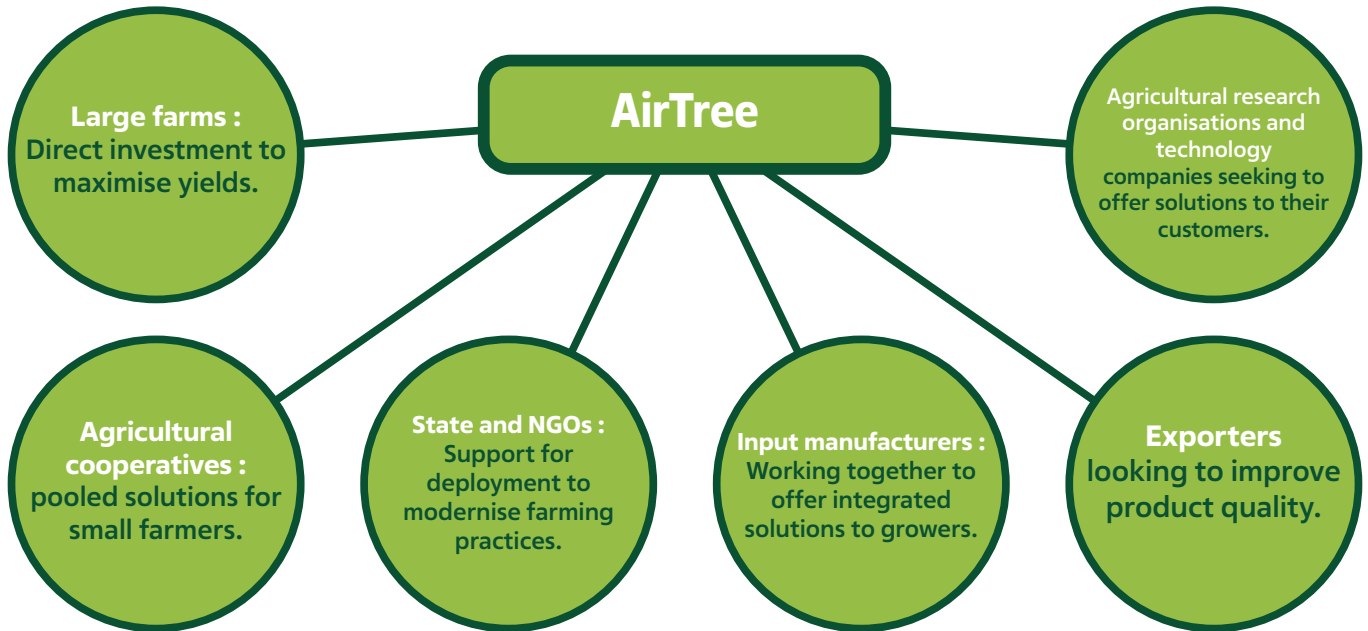
- Increased yields: Uniform pollination improves fruiting and quality.
- Reducing losses: Early detection of diseases for rapid intervention.
- Cost optimisation: Reduce unnecessary labour and inputs with precise applications.
- Sustainability: Fewer chemicals and better use of natural resources.
- Versatility: Use all year round, depending on the crop.



#### SOLUTION COMPONENTS

- Autonomous drones: equipped with sensors to map, identify and act.
- Advanced sensors: Optical and thermal technology to analyse flowers and detect disease.
- Artificial intelligence software: real-time data analysis to optimise pollination and treatments.
- Management platform: application-based monitoring of performance and interventions.
- User training: Programme to train producers in the use and maintenance of the systems.

# WHO WILL PAY FOR THIS SERVICE OR PRODUCT ?



## SUCCESS STORIES

### iPollinate

is a platform that provides real-time monitoring and quality assurance of pollination services. It optimises crop efficiency and yields by providing pollination and harvest analyses, as well as evidence-based advice for different crop types, locations and climates.

[CLICK HERE](#) ➔



Crédit photo : www.pats-drones.com

### Agrio

is a mobile application that uses artificial intelligence to identify plant diseases based on photos taken by users. It acts as a personal pocket agronomist, offering rapid diagnoses and treatment recommendations, helping farmers to manage the health of their crops effectively.

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### Orchard Robotics

is a company specialising in the development of advanced camera systems and computer vision software for the precise management of orchards. Their technology makes it possible to 'see', measure and track the visible fruit on each tree, providing essential data for optimising fruit size, crop quality and supply chain management. Their systems, equipped with more than ten internal sensors and patented technology, are easily mounted on any agricultural vehicle, enabling scans to be taken anytime, anywhere.

[CLICK HERE](#) ➔

### Dropcopter

Drones specialising in aerial pollination for agricultural crops.

[CLICK HERE](#) ➔

### PATS-X

Autonomous drones for detecting and treating crop pests.

[CLICK HERE](#) ➔

## PROCESS FOR REALISING THE OPPORTUNITY

### PHASE 1:

Research & development: Study of pollination requirements and treatment of diseases in the various sectors.

### PHASE 2:

Pilot tests: Development of drones, integration of sensors and functions and testing of a multifunctional prototype based on optical learning in several different orchards and crops.

### PHASE 3:

Launch: Deployment on pilot farms with user training, followed by a POC followed by a gradual commercial launch with strategic partnerships.

### PHASE 4:

Monitoring and evaluation: Adjustments based on data collected and feedback from users.

COMPLEXITY



LEVEL OF INVESTMENT NEEDED

