

AtlasField

SPACE FOR EARTH & HUMANITY



Fatima: A 3rd generation farmer facing Morocco's 6th year of drought.





Last summer, temperatures hit 47°C; by the time she noticed stress, 40% of her harvest was already gone.



She had no early warning and no data to act before the damage became permanent.



**Meet Lhaj
Hassan, a
forest ranger
in the Middle
Atlas:**



Last summer, a fire destroyed 200 hectares before he even saw the smoke.



One man cannot manually monitor 50,000 hectares for fire risk.

Problem statement

What if Fatima had received an alert three weeks before her trees showed visible stress?

What if Hassan could see exactly which zones were at fire risk before the first flame?



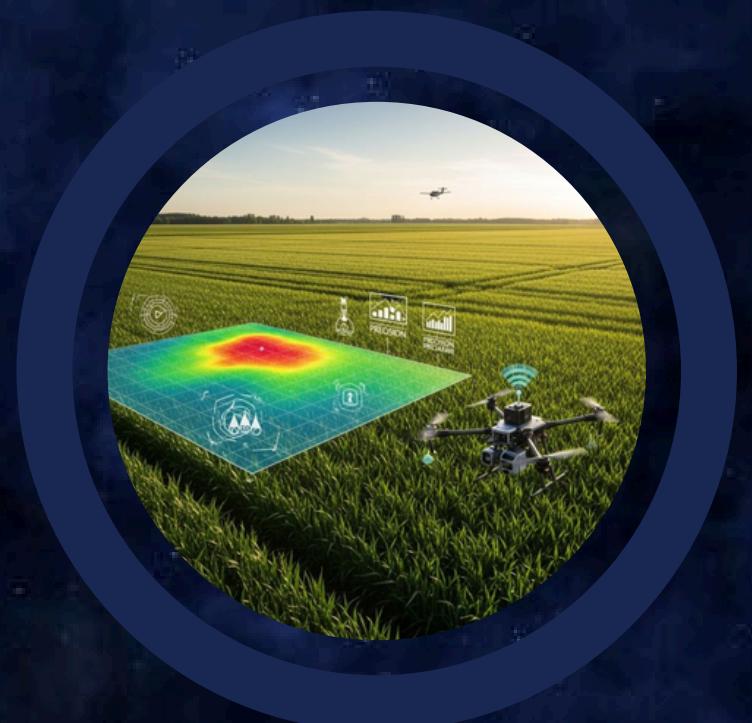
ESA1: Dynamic Fields: AI-driven Vegetation Monitoring



The Investment

€7 Billion Infrastructure

The Copernicus program is the world's most advanced Earth observation system.



The Data Gap

*Free but Underutilized
High-resolution imagery is available to everyone, yet farmers lack the tools to read it.*



The Social Impact

Unlocking Global Value

Space technology only matters when it solves real human problems on the ground.

Our solution

AtlasFields is a dual-ecosystem monitoring platform built on ESA's Copernicus program that transforms free satellite data into actionable insights. By fusing Sentinel-2 optical imagery with Sentinel-1 all-weather radar, it ensures 365-day monitoring even through cloud cover. The platform uses eight peer-reviewed scientific indices to detect crop stress and fire risks weeks before they are visible to the human eye. Ultimately, it turns complex space technology into simple health scores, regional threat alerts, and a verified dashboard for carbon credit monetization.

Our platform 

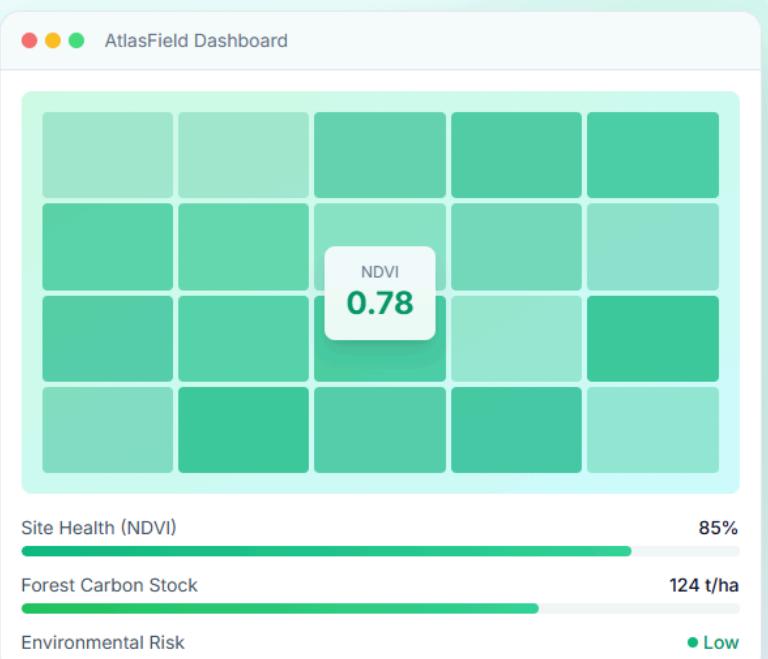
AtlasField  Powered by ESA Sentinel Data 

Monitor Your Fields & Forests from Space

Get real-time insights on crop health, forest density, and environmental risks using Sentinel satellite data and AI. Build a sustainable future for your land with data from space.

[Start Free Trial →](#) [Watch Demo](#)

✓ 500+ Land Managers ✓ 10,000+ Hectares ✓ 98% Accuracy



Project & Technological Bricks:

Tech Brick 1 – Dual Satellite Integration

Sentinel-1 + Sentinel-2: All-weather, 365-day monitoring.

- Sentinel-2: Optical imagery for vegetation health and moisture.
- Sentinel-1: C-band SAR radar that works through clouds and at night.
- The Edge: Morocco has cloudy winters; optical-only platforms fail, we don't.

Tech Brick 2 – Scientific Spectral Indices

Index	What it measures	Scientific Proof
NDVI	Overall vegetation health	✓ 40+ years of studies. NIH, MDPI, Wageningen University. The gold standard.
EVI	Dense canopy biomass	✓ NASA MODIS team developed it. 97.97% accuracy in crop classification (IJSAT 2024).
NDMI	Moisture stress, fire risk	✓ Rendana et al. (2023): NDMI predicts 14–30% increase in fire risk zones.
NDRE	Chlorophyll, nitrogen	✓ ResearchGate studies: detects nitrogen deficiency weeks before NDVI does.
NBR	Burn severity	✓ USGS standard for post-fire assessment since 1990s.
SAVI	Sparse vegetation	✓ Huete (1988): corrects soil interference, peer-reviewed 10,000+ citations.

Tech Brick 3 – Composite Health Scores

For farms (Fatima):

$$\text{Health Score} = (\text{NDVI} \times 60\%) + (\text{NDRE} \times 25\%) + (\text{NDWI} \times 15\%)$$

For forests (Hassan):

$$\text{Forest Health Index} = (\text{EVI} \times 40\%) + (\text{NDMI} \times 30\%) + (\text{NBR} \times 30\%)$$

Tech Bricks 4 & 5 – Alerts and Micro-Weather

- Collective Protection: When a threat is detected on one farm, we alert everyone within 5 km.
- Personalized Stations: We combine satellite temperature with ground sensors for field-specific forecasts.

Tech Brick 6 – IoT + Drone Integration (Enterprise)

- **Tiered Verification:** When the satellite detects an alert, ground sensors validate the data; if uncertainty remains, we dispatch a drone for visual confirmation.
- **Custom Enterprise Assessment:** We conduct a specific study for each large client to recommend exactly what adds value, whether it is camera traps, soil sensors, or drones.
- **Mission Control:** Integrated orchestration of IoT and drone hardware for 24/7 automated monitoring.

Tech Brick 7 – Carbon Credits Dashboard

- **Satellite-Verified Sequestration:** We calculate carbon absorption based on biomass levels verified directly by Sentinel satellite data.
- **Financial Transparency:** Provides farmers with an estimated value of their sequestration (e.g., 84 tonnes of \$CO₂\$ valued between \$504 – \$2,184).
- **Marketplace Connection:** The platform connects farmers directly to carbon buyers, creating a new revenue stream from land that was already working.

Business Model Canvas

Designed For:
Designed By:
Date:
Version:

Key Partners	Key Activities	Value Propositions	Customer Relationship	
<ul style="list-style-type: none"> • ESA / Copernicus • Sentinel Hub API • IoT sensor manufacturers <ul style="list-style-type: none"> • Drone providers • Telecom (Telegram) • Carbon credit buyers 	<ul style="list-style-type: none"> • Satellite data processing <ul style="list-style-type: none"> • Spectral indices calculation • Alert generation • IoT/Drone orchestration <ul style="list-style-type: none"> • Custom assessments 	<p>"Turn FREE ESA data into actionable insights"</p> <ul style="list-style-type: none"> ✓ Dual ecosystem (farms + forests) ✓ Dual satellite (S1 + S2) ✓ 8+ scientific indices ✓ Carbon marketplace 	<ul style="list-style-type: none"> • Telegram/WhatsApp alerts • Personalized dashboards • Custom client studies • 24/7 automated monitoring 	
Customer Segments	Key Resources	Channels	Cost Structure	Revenue Stream
<ul style="list-style-type: none"> • Small farmers • Medium farms • Large agribusiness • Forest agencies <ul style="list-style-type: none"> • Insurers • Investors 	<ul style="list-style-type: none"> • Sentinel Hub API access • Data science team • Algorithms & ML models • Cloud infrastructure 	<ul style="list-style-type: none"> • Web app (dashboard) <ul style="list-style-type: none"> • Telegram bot • WhatsApp alerts • Agricultural cooperatives 	<ul style="list-style-type: none"> • Cloud computing (AWS/GCP) • Sentinel Hub API (pay-per-use) • Development team • IoT hardware (Enterprise) • Customer support 	<p>FREE - €0 - Up to 20 ha, basic satellite monitoring PRO - €3/ha/year - Weather, yield prediction, analytics ENTERPRISE - €5/ha/year + setup fee - IoT, drones, custom CARBON COMMISSION - 7% per transaction</p>

Pricing Justification (Market Study)

Competitor	Pricing	Source
OneSoil Pro	"Few £/ha" (~€3-4/ha)	Agrovista UK, 2024
Cropio	Custom quote	Enterprise-focused
Bushel Farm	\$199-\$1999/year (flat)	US market
Farm21	€10/ha for high-res	Premium tier
Market average	€2.5-5/ha/year	Multiple sources

STRENGTH

Free ESA data = low cost
Dual satellite (S1+S2) = no blind spots
Science-backed indices
Dual ecosystem (farms + forests)

WEAKNESS

Early stage = flexibility to pivot fast
Lean team (3) = focused, no bureaucracy
Cloud-dependent = but so is every SaaS

OPPORTUNITY

Morocco Plan Vert = government support
Carbon market growing 35%/year
Climate change = urgent need
ESA seeking partners

THREAT

Big tech could enter (Google, Microsoft)
Competitors like OneSoil scaling
Farmer tech adoption barriers
Data quality depends on ESA uptime





SUSTAINABLE DEVELOPMENT GOALS

1 NO
POVERTY



2 ZERO
HUNGER



17 PARTNERSHIPS
FOR THE GOALS



8 DECENT WORK AND
ECONOMIC GROWTH



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



15 LIFE
ON LAND



13 CLIMATE
ACTION



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE

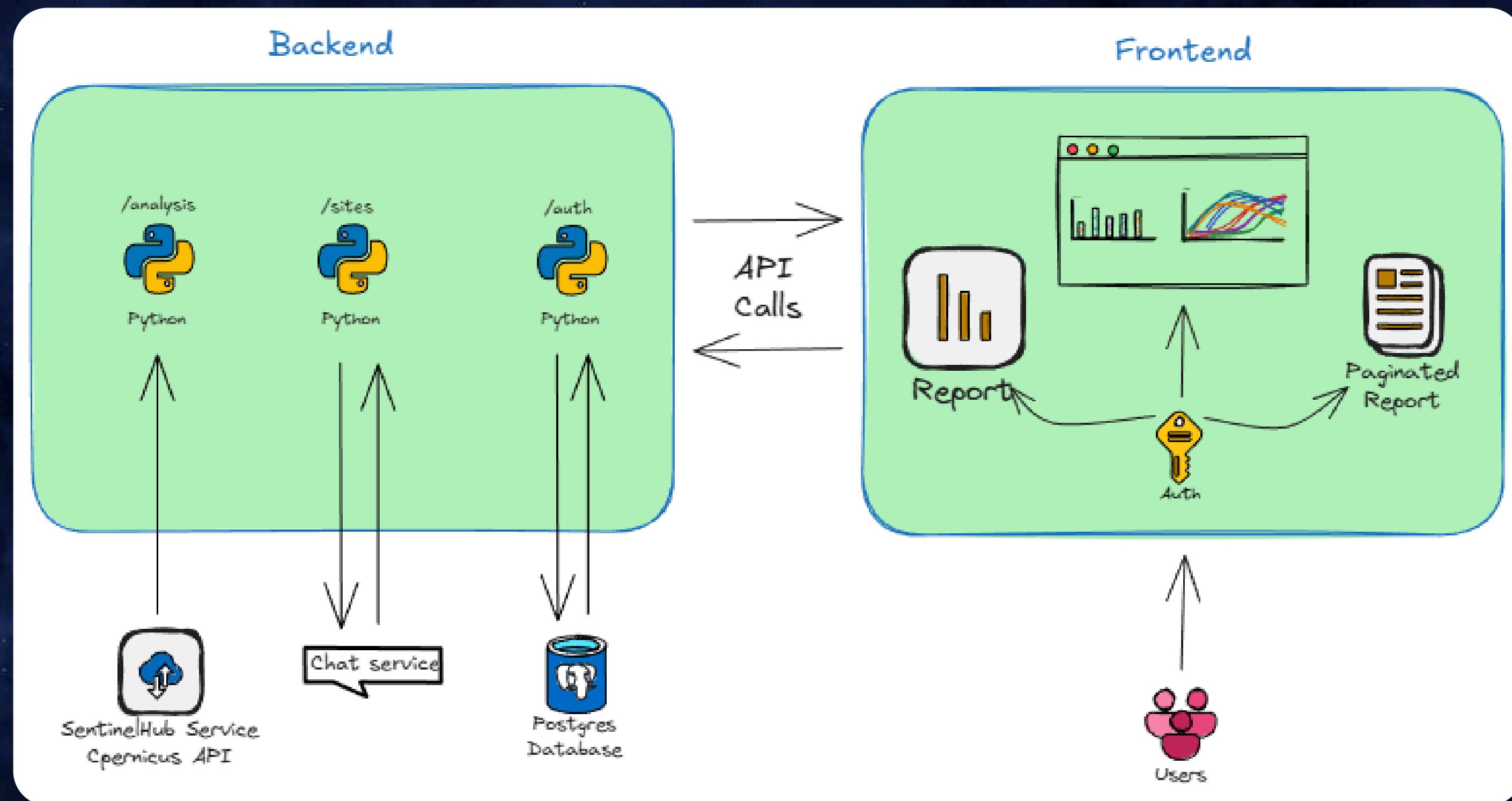


**WE ARE NOT CREATING NEW DATA. WE ARE NOT LAUNCHING
NEW SATELLITES.**

**WE ARE UNLOCKING WHAT ALREADY EXISTS AND PUTTING IT IN
THE HANDS OF THE PEOPLE WHO NEED IT MOST**

LIVE DEMO TIME

Architecture & Technologies





THANK YOU





Satellite data exists, but it's too technical for a ranger to use in the field.



No verifiable data means no access to finance or the \$7.5B carbon market.