

Finapp S.P.A.: Soil Moisture Monitoring for Precision Irrigation Over Large Fields

Smart soil moisture monitoring for improved water-use efficiency, crop performance, and climate resilience.

Finapp Soil Moisture Probe uses cosmic ray technology to monitor soil moisture across up to 10 hectares with a single above-ground sensor, helping commercial farms and irrigation-dependent businesses improve irrigation scheduling and water-use efficiency through data-driven decision-making.



Finapp S.P.A.
Andrea Sala

Commodities

Maize, Wheat, Cassava, Common bean,
Soybean, Cowpea, + 3 more

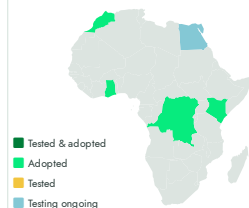
Sustainable Development Goals



Categories

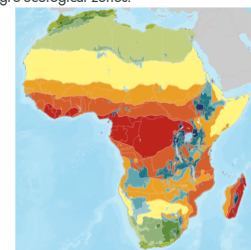
Production, Pre-production, Equipment,
Water management

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Development institutions, Farmers,
Governments, Sellers, Manufacturers,
Researcher center, + 2 more



This technology is **pre-validated**.



Scaling readiness: idea maturity
9/9; level of use 7/9



Patent granted, Trademark

Problem

- Irrigation inefficiencies can increase energy and pumping costs by **15% to 25%**.
- Traditional soil moisture sensors provide limited information for managing large production areas.
- Drought and climate variability can reduce crop yields by **30% to 80%**.
- Poor irrigation management can waste up to **40%** of agricultural freshwater resources.

Solution

- Optimize irrigation with real-time soil moisture monitoring.
- Reduce pumping energy costs by **20% to 30%**.
- Increase crop yields by **15% to 20%** through better irrigation decisions.
- Monitor up to **10 hectares** with a single probe.

Key points to design your business plan

Finapp Soil Moisture Probe enables agricultural service providers and technology companies to expand their business with precision irrigation solutions. The technology contributes to **SDG 2, SDG 6, SDG 13, and SDG 15** by improving agricultural productivity, increasing water-use efficiency, strengthening climate resilience, and promoting sustainable land management. Successful commercialization should:

- Secure partnerships with Finapp or authorized technology providers.
- Integrate soil moisture monitoring into irrigation advisory services.
- Demonstrate economic and environmental benefits to customers.
- Develop complete service packages for installation, monitoring, and decision support.
- Expand adoption through strategic partnerships and customer outreach.

Inclusion assessment

👍 14

👎 10

🌟 18

Climate impact

👍 7



Finapp S.P.A.

<https://taat.africa/gqo>

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Enquiries e-catalogs@taat.africa