Funding annex · World Bank

Türkiye Climate-Smart & Competitive Agricultural Growth Project (TUCSAP)

QuantumSpectra · 2026-11-24 12:51 UTC · pillars: spectral · annex to the investor one-pager (0x3615025815ec82…)

What we request

Measurable fertiliser and CO_2e reductions reported from probe-calibrated prescriptions

We fuse hyperspectral imaging, satellite feeds, quantum-enhanced AI, structural simulation and custodial blockchain finance into one platform for sustainable agriculture, earthquake-safe urban renewal and auditable public services in Türkiye. Every measurement, contract, pickup and payment is SHA-256 anchored, so citizens, municipalities and funders look at the same evidence.

Pillar fit

Hyperspectral Big-Data Diagnostic Model — Collected the İMECE Way · **live · simulated spectra + field probes**

Cooperatives, field teams and citizens feed one cube library: nutrient passports, pesticide and chemical-waste detection, SWIR health indices, materials durability. Three trust tiers — simulated model → 7-in-1 probe calibration → laboratory verification — keep every data point comparable.

- Variable-rate fertiliser prescriptions (GeoJSON + ISO-XML) with rates learned from strip trials
- Farm-to-fork traceability via QR passports, shopper ratings and a hash chain
- Per-field soil trends against the platform median — for zero-carbon targets and accountability

6 nutrient-panel scans · **0** lab-verified · **0** probe-calibrated · 0 sheets · **6** field captures · 6 coops · https://spaceseax.tech/soil

Live KPIs — read from the platform database at generation time

53 hyperspectral / satellite scans	**56** safety & carbon certificates	**727 kg** farm-to-fork traded · 10 orders	**6** cooperatives on the market
0 CSA households · treasury 0 TRY	**117.2 M TRY** renewal bond capital · 19 cases	**36** earthquake-safe units renewed · 36 high-risk retired	**19** rural health screenings · loop closure 0.0 %
16 mining research sites · 0 surveys	**0** quality QR batches	**0** shopper ratings · avg —/5	**6.6 M TRY** social-housing donations · 7 sites · 41 citizen claims

Spectral, health and mining values are SIMULATED research-grade outputs until live sensors stream; wallets and bonds run on simulated TRY; blockchain anchors are SHA-256 hashes stored in MongoDB.

Evidence register — anchored records you can verify

Pillar	Evidence	Record	Date	Anchor / hash	Verify
Hyperspectral İMECE data	Field capture	health · QA Health dd5257	2026-10-04	0x9152732984e647fb…	/field
Hyperspectral İMECE data	Field capture	note · NDVI Real Test 65ea98	2026-10-04	0x2c1df00ebcc33237…	/field
Hyperspectral İMECE data	Field capture	note · NDVI Real Test 65ea98	2026-10-04	0x10df3ae2079f2b8d…	/field
Hyperspectral İMECE data	Field capture	photo · NDVI Real Test 65ea98	2026-10-04	0x93a0542609be6216…	/field

Verify paths are relative to https://spaceseax.tech

How to verify

Every row carries a SHA-256 anchor written to the platform ledger when the record was created. Open the verification link, or upload the attached PDF at https://spaceseax.tech/verify/report to compare its hash with the archived copy. KPI values are live counts; the annex content hash is printed in the footer so two copies can be compared.

Every number in this summary is read live from the platform database; the text is deterministic (no LLM) and sealed with a content hash + SHA-256 anchor. Evidence: the anchored ledger, a PDF archive with verification links, council receipt stamps, laboratory and probe calibration records.

Bundle contents

1. — no module report could be rendered —

partners@quantumspectra.io · Academic partner: Başkent University · https://spaceseax.tech/pitch

`annex content hash 8475d221b6629be2609573504c63e37c72afcdc2ef841507090478ff43d63e3c`
`one-pager anchor 0x3615025815ec826aa588822c532a6508087add5a919dbae53c2084e2b1199a0f · pilot model v1 · 2026-11-24 12:51 UTC`