LUCAS

The API for Reality

Proof of Atoms in a World of Digits

On-demand human verification for the physical world, accessible via a simple API.

"If your job involves moving atoms, you're safe.
If it involves moving digits, AI is taking over like lightning."

— Elon Musk

Business Plan

Confidential — November 2025

lucas.app

1. Executive Summary

The Problem: AI Can't See the Real World

AI is rapidly evolving from Large Language Models (LLMs) to Large Action Models (LAMs). These systems can reason and decide, but they cannot directly verify physical reality.

Businesses and AI agents need answers to simple but critical questions:

- "Is this store open right now?"
- "Is this shelf stocked?"
- "Is this EV charger functional?"
- "Did the delivery actually happen?"

Today, verification is **slow** (days/weeks), **expensive** ($15–$200), **limited** (major metros only), and conducted by outdated Web2 audit firms. There is no modern, programmable way to request real-time human verification.

The Solution: LUCAS

LUCAS (Location-based Universal Confirmation and Attestation Service) is a global verification network. A simple API allows any system to request real-world checks, and a distributed workforce performs those checks for instant stablecoin payouts.

LUCAS is the Physical Ground-Truth Layer for AI and enterprise systems.

Why Now: Three Super-Cycles Converge

1. **Autonomous AI** requires verified physical data before taking actions
2. **DePIN** (Decentralized Physical Infrastructure) proves distributed networks scale faster than centralized incumbents
3. **Stablecoins** enable global micropayments with near-zero friction

Three-Phase Evolution

Phase	Who Requests	Who Verifies	When
1	Businesses	Humans	2025
2	Businesses + AI Agents	Humans	2026
3	AI + Autonomous Systems	Humans + Robots	2027+

Key Metrics

Category	Physical AI Infrastructure
Product	API + Agent App + Client Dashboard
Revenue Model	20–30% take rate + API tiers + data licensing
Beachhead	Mexico City (22M pop, 87% smartphone, crypto-native)
Moat	Reality Graph + Trust Architecture + Network Effects

2. Market Opportunity

2.1 Total Addressable Market

Segment	TAM	CAGR	Source
Retail Execution	$513M (2033)	7.4%	Customertimes
Geospatial Analytics	$226B (2030)	11.3%	Grand View
Crowdsourced Testing	$3.1B	10.3%	R&M
Physical AI Data	**Emerging**	**>30%**	**Scale AI**

2.2 Beachhead: Retail Execution in CDMX

Why retail audit is the ideal wedge:

- Frequent tasks (daily/weekly) — high volume
- High economic impact — shelf presence directly drives sales
- Simple task flow — photos + checklist
- Fast sales cycles — brands have budget and urgency
- Perfect for supply bootstrapping

The Unsatisfied Requirement:

Existing solutions (Trax, Field Agent) are "closed loops" — they collect data and present it on their own dashboards. Brands want **raw, verifiable data streams** flowing directly into Snowflake or Salesforce. LUCAS, as an API-first protocol, fits this perfectly.

2.3 Expansion Markets

Market	Use Cases	TAM
Geospatial	POI validation, road status, infrastructure checks, smart city	$226B
Logistics	Proof of delivery, address validation, entrance mapping	$8B+
Physical AI	Robotics training, drone ops, warehouse automation, RLHF	Emerging

LUCAS becomes the world's first Distributed Physical RLHF Network — Reinforcement Learning from Human Feedback applied to real-world robotics and embodied AI.

3. Solution: The LUCAS Protocol

3.1 Demand Side: "Ask LUCAS"

Businesses or AI agents submit verification requests via API:

```
{
 "location": "19.4326, -99.1332",
 "task": "Verify Coca-Cola Zero 2L availability",
 "requirements": ["shelf_photo", "unit_count", "price_tag"],
 "budget_usd": 4.50,
 "sla_hours": 3
}
```

LUCAS returns:

- GPS-stamped photos + videos
- Structured answers to verification questions
- TrustScore (confidence rating)
- Full audit trail + metadata

3.2 Supply Side: "Earn with LUCAS"

Data Contributors: Students, delivery workers, gig workers, micro-entrepreneurs across emerging markets.

What they do: Capture and license photos, videos, and observations at real locations using smartphones.

Why they join:

- **Instant payouts** — USDT arrives in minutes, not weeks
- **No bank required** — spend via LUCAS × Pomelo virtual card
- **Stable currency** — earn in USD, avoid peso volatility
- **AI-proof work** — physical verification cannot be automated

3.3 Task Flow

1. **Request:** Client/AI submits task via API or dashboard
2. **Dispatch:** LUCAS matches to qualified agents nearby
3. **Verify:** Agent captures GPS-stamped evidence
4. **Validate:** AI + peer review confirms quality
5. **Deliver:** Client receives evidence + TrustScore
6. **Settle:** Agent receives instant USDT payout

4. Trust Architecture (The Moat)

The "Verification Puzzle" is the core challenge: How do you prove physical work in a decentralized network without a central manager watching workers?

4.1 Multi-Layer Anti-Fraud Stack

Layer	Method	What It Catches
1	GPS + EXIF validation	Basic location fakes, old photos
2	Device Attestation (Play Integrity / App Attest)	Rooted devices, emulators, modified apps
3	**PoPD** (Proof of Physical Displacement)	Stationary spoofing — proves actual walking
4	AI liveness checks	Photos of photos, AI-generated images
5	Peer validation (Optimistic Oracle)	Subtle fraud that passes automated checks
6	Reputation scoring	Repeat offenders, low-quality contributors
7	Humanity Protocol (ZK palm vein)	Sybil attacks — one human = one account
8	Staking + slashing (future)	Economic disincentive for high-value fraud

This evolving trust layer becomes extremely difficult for competitors to replicate.

4.2 Why Native App, Not PWA

High-integrity verification requires sensor data that PWAs cannot reliably access:

PWA Limitation	Native App Solution
iOS blocks accelerometer/gyroscope	Full sensor access for PoPD
Cannot detect GPS spoofing	Play Integrity / App Attest APIs
No device attestation	Cryptographic device verification

Path: PWA for 2025 pilot (manual QA catches fraud). Native app launch Q2 2026 for enterprise credibility.

5. Competitive Landscape

5.1 LUCAS vs. Web2 Incumbents

Factor	Traditional	LUCAS
Cost per audit	$15–$20	**$3–$8**
Worker payout	$4–$5	**$6–$7 (+30%)**
Payment speed	Weekly/Monthly	**Instant**
API access	Limited / dashboard	**Core product**
Scalability	Staffing-based	**Network-based**
Trust model	Manual review	**Sensor + AI + Peer**

5.2 LUCAS vs. Web3 DePIN

Factor	Existing DePIN	LUCAS
Hardware	Required ($300+ dashcam)	**Smartphone only**
Activity type	Passive mining	**Active tasks**
Programmability	Limited	**Full API**
Coverage	Roads only (Hivemapper)	**Anywhere pedestrians go**
Use cases	Narrow (mapping, IoT)	**Universal verification**

Strategic insight: The true competitor is not another crypto project — it's the internal audit teams of major corporations. LUCAS wins by being cheaper and faster than sending an employee.

6. Business Model & Economics

6.1 Revenue Streams

1. **Transaction take rate:** 20–30% per task
2. **API usage fees:** Tiered pricing for enterprises and AI labs
3. **Premium SLAs:** Guaranteed response times (<1hr, <3hr)
4. **Data products:** Reality Graph insights, heatmaps, trends
5. **Oracle feeds:** On-chain verified data for DeFi (future)

6.2 Unit Economics

Metric	Value
Average task price	$5.00
Agent payout (70%)	$3.50
LUCAS revenue (25%)	$1.25
QA/Validation costs (5%)	$0.25
Net margin per task	**$1.00 (20%)**

At scale: 2,000 tasks/client/month = $10,000 GMV → $2,000–$2,500 LUCAS revenue per client.

6.3 Financial Trajectory

Metric	2025	2026	2027
Markets	1 (CDMX)	4 cities	12 cities
Active Agents	500	5,000	25,000
Tasks/Month	10K	150K	750K
Annual Revenue	**$120K**	**$1.8M**	**$9M**

7. Regulatory Strategy: Three-Layer Defense

7.1 The Risk: Mexico Labor Reform (June 2025)

Mexico's new labor law creates a critical threshold:

If worker earns ≥ $420 USD/month	→ Legally classified as EMPLOYEE
Platform must provide:	IMSS, INFONAVIT, profit sharing (PTU)
Cost impact:	+25–35% labor costs
Non-compliance penalty:	Up to $135,000 USD

7.2 Layer 1: Data Marketplace Model (Primary Defense)

Key insight: LUCAS does not hire workers. LUCAS licenses copyrighted photos from Data Contributors.

This shifts the entire legal framework from **Labor Law** to **Intellectual Property Law**.

Traditional Gig Model	LUCAS Data Marketplace Model
Platform hires workers	Platform licenses data/photos
Governed by Labor Law	Governed by IP/Copyright Law
"Wages" trigger employment	"Licensing fees" for copyrighted content
Worker = Employee risk	Contributor = Content Creator

Users explicitly grant LUCAS license to their photos. Payments are structured as licensing fees for copyrighted visual content, not wages for labor performed.

7.3 Layer 2: Circuit Breaker Architecture (Backup)

If the Data Marketplace framing is challenged, LUCAS implements protocol-level compliance:

Mechanism	How It Works
Earnings Caps	Smart logic tracks earnings per wallet. When approaching $420/month threshold, system stops assigning tasks. Contributor remains independent.
Multi-Platform	Contributors free to work on other platforms. No exclusivity = no employment relationship.
Fiat Fallback	Bank transfer option available where crypto creates regulatory friction.

7.4 Layer 3: EoR for Super Users (Full Compliance)

For "super users" who want to work full-time and exceed thresholds, LUCAS partners with **Employer of Record (EoR)** providers (like Deel, Remote, Oyster):

- Super user opts into "Pro" status
- EoR partner hires them as W2 employee with full benefits (IMSS, INFONAVIT, PTU)
- LUCAS pays EoR a B2B invoice
- Regulatory liability shifts to EoR partner
- Super user gets job security; LUCAS gets compliant high-performers

This three-layer defense gives LUCAS a regulatory moat that rivals cannot easily replicate.

8. Go-to-Market Strategy

8.1 Tesla GTM Framework

Phase	Codename	Focus
Phase 1	Roadster	Retail audit for FMCG brands. Prove SLA, quality, unit economics.
Phase 2	Model 3	Logistics & mapping. Proof of delivery, POI validation, last-mile.
Phase 3	Robotaxi	AI agents & oracles. Physical RLHF, robotics training, DeFi feeds.

8.2 Supply Growth: "Vampire Attack"

Target existing gig workers where they already congregate:

- Penetrate WhatsApp/Telegram groups for Rappi, Uber Eats, Didi couriers
- Offer instant USDT micro-earnings along existing delivery routes
- Referral bonuses (both parties earn)
- University ambassadors
- Quality-focused micro-communities per neighborhood

8.3 Enterprise Integration Strategy

Don't compete with Salesforce — be their oracle.

- **Scale AI / Labelbox:** "When your AI is unsure, hit our API for human verification"
- **Snowflake / Databricks:** Raw verified data streams, no dashboard tax
- **SAP / Salesforce:** Ground Truth Oracle feeding directly into ERP workflows

9. Future: Tokenized Network Evolution

Note: This section describes Phase 3+ evolution, not core to initial business plan.

Once enterprise traction is proven, anti-fraud architecture is robust, and regulatory frameworks are established, LUCAS can transition to a progressively decentralized verification network.

9.1 Dual-Asset Model

Token	Purpose	Rationale
USDT	Worker payments	Stability for retention. Workers have bills in fiat.
$LUCAS	Staking, governance, arbitration	Performance bond for high-value tasks. Fraud = slashing.

9.2 Future Mechanisms

- **Staking for high-value tasks:** Contributors stake $LUCAS as performance bond. Cheating triggers slashing.
- **Decentralized arbitration:** Peer validators earn rewards for confirming or disputing submissions.
- **Reality Graph on-chain:** Aggregated geospatial insights become public oracle layer for DeFi, insurance, real estate.
- **Buyback & burn:** Protocol uses 10% of B2B revenue to buy back $LUCAS, creating deflationary pressure.

10. Roadmap

2025 — Prove the Model

- Launch native mobile app with anti-spoofing V1
- Deploy retail pilot in CDMX
- Achieve <3 hour SLA
- Complete 10,000 tasks/month
- Implement earnings cap (pre-June reform)
- Onboard 3–5 paying pilot customers

2026 — Scale

- Expand to 4 cities (São Paulo, Bogotá, Lima, Buenos Aires)
- Launch public API
- Native app with full anti-spoofing stack
- AI-powered fraud detection
- Humanity Protocol integration
- Logistics & mapping product line
- 150K+ monthly tasks

2027 — Own the Ground Truth Layer

- Global footprint in 12+ cities
- AI agent integrations (Scale AI, robotics labs)
- First Physical RLHF contracts
- DePIN staking layer launch
- On-chain oracle feeds for DeFi
- 750K+ monthly tasks
- Become standard "Physical Verification API"

11. Vision

The future economy is run by autonomous agents and AI systems

that make billions of decisions per day.

These agents need real-time, trusted, physical truth to act safely.

LUCAS is the Proof-of-Atoms Layer.

The programmable interface between digital and physical worlds.

The API for Reality.

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12. Investment Opportunity

Use of Funds

Category	Allocation
Engineering (mobile, backend, AI)	40%
Go-to-Market (CDMX + expansion)	30%
Operations & Agent Acquisition	15%
Legal & Compliance	10%
Reserve	5%

Key Milestones

- **Month 6:** 10K tasks/month, 3 paying customers, <3hr SLA proven
- **Month 12:** Native app live, 50K tasks/month, unit economics validated
- **Month 18:** 4 cities, 150K tasks/month, public API, enterprise contracts

The Opportunity

LUCAS is positioned at the intersection of three mega-trends: Physical AI, DePIN, and stablecoin adoption. We're building the critical infrastructure that connects AI systems to physical reality — a layer that becomes **more valuable** as AI advances.

Target raise: [TBD]

Runway: 18–24 months

Contact: [diego@lucas.app]