

SAICTS (PTY) LTD

Phepha FleetIQ

Investment memorandum and institutional funding case

Offline-first fleet intelligence, camera evidence and read-only vehicle diagnostics for African operations



Concept render. Final enclosure, connectors, electrical protection and industrial design remain subject to engineering and certification.

FIELD	DETAIL	FIELD	DETAIL
Prepared for	Prospective public and private funders	Stage	Functioning edge prototype
Funding ask	R3.5m hybrid capital	Validation target	50 field units / 12-15 months
Applicant	SAICTS (Pty) Ltd	Registration	2024/170173/07
Location	Durban, South Africa	Web	phepha.org.za / saicts.co.za

Decision requested: Fund a 12-15 month validation programme that converts a working prototype into 50 commissioned field units, paid anchor pilots, measured reliability evidence, production-ready controls and a complete diligence room.

Confidential. Planning assumptions are labelled; safety-critical vehicle actuation is excluded from the pilot.

EXECUTIVE PROPOSITION

A measured pilot, not an unbounded promise

Phepha is an offline-first mobility intelligence platform designed for vehicles that operate through weak or intermittent connectivity. The edge unit keeps camera, GNSS, driver identity, geofence policy and event capture running locally; it queues evidence to disk and synchronises when a trusted link returns. The control plane turns those events into an operational workspace, notification path and independently verifiable dossier.

Investment thesis: Generic tracking, geofences and cameras are mature baseline features. Phepha's investable wedge is the combination of offline continuity, linked evidence, policy versioning, local privacy boundaries and open integration contracts - if a field pilot proves reliability, adoption and unit economics.

The ask

- R3.5m total milestone budget, structured as up to R1.0m non-dilutive or pilot capital plus R2.5m equity or convertible funding.
- Three anchor organisations willing to run paid, independently measured pilots in logistics, mining, security or insurance-linked operations.
- Automotive electrical, privacy, certification, installation and response partners who can close the gaps software cannot legitimately claim to replace.

What the capital must prove

1. The device survives power loss, weak links, heat, vibration and recoverable software failure without losing accepted events.
2. The product generates measurable value through faster incident reconstruction, fewer blind intervals and auditable geofence response.
3. The economics support a service business after hardware, installation, connectivity, warranty, storage and support.
4. The governance model is credible under POPIA, ICASA and any future automotive-security or actuation approval path.

PROBLEM AND OPPORTUNITY

Fleet operations lose context exactly when it matters most

Fleet operators often receive a position, an isolated alert or a video clip without the complete operational context: which driver was present, which policy version applied, what occurred before the alert, whether the device was offline, who acknowledged the notification and whether the exported record changed afterwards. Connectivity gaps make this worse because cloud-dependent workflows can fail silently during the incident itself.

SOUTH AFRICA, DECEMBER 2025	INITIAL VEHICLE CLASSES	NATIONAL ROAD CONTEXT
13.68m	826k	11,485
Registered vehicles	Trucks, buses and minibuses	Road fatalities in 2025

The 826,146-vehicle figure combines trucks, buses and minibuses in the RTMC 2025 report. It is an initial category count, not a serviceable obtainable market and not a customer forecast. The fatality figure provides national context only; Phepha makes no accident-prevention claim. [1]

Why the opportunity remains open

- Incumbents already provide mature tracking, geofences, camera analytics, driver behaviour and recovery operations; Phepha cannot win by reproducing a dot on a map.
- Weak-link operations remain a practical design constraint across logistics corridors, mines, rural areas and cross-border work.
- Evidence is often fragmented across telematics, video, messages and manual reports; linking the event chain can reduce investigation effort and improve auditability.
- Open schemas, customer-owned policies and portable exports can support integrations without forcing the customer to abandon existing tracking or response providers.

Scenario, not forecast: At the planning mix of 40% Connect, 35% Protect and 25% Command, blended monthly revenue is about R409 per active vehicle. That implies about R0.491m ARR at 100 vehicles, R4.908m at 1,000, and R40.545m at 8,261 vehicles - 1% of the initial truck, bus and minibus count.

1. Sense locally: camera, GNSS and approved read-only vehicle channels continue whether or not the cloud is reachable.
2. Decide locally: geofence, schedule, speed and dwell policies evaluate against the latest valid inputs.
3. Record first: events, policy versions and evidence references enter a durable local outbox before any network call.
4. Synchronise securely: queued telemetry and event media move through authenticated transport when connectivity returns.
5. Respond and verify: the control plane routes alerts, records acknowledgement and exports a signed incident dossier.



Current boundary: The Pi is an edge endpoint, not the public product. Public users should connect to a separately secured, multi-tenant control plane. The vehicle unit should not expose an inbound internet service.

COMMERCIAL OFFER

The product is a managed service stack, not a once-off box

SERVICE LAYER	CUSTOMER DELIVERABLE	MATURITY
Edge device	Provisioned unit, signed software, unique identity and health telemetry	Prototype built; industrialisation funded next
Operations workspace	Live map, camera, drivers, geofences, incidents and policy controls	Edge workspace built; public multi-tenant version next
Evidence service	Hash-linked events, signed dossiers, exports, retention and access audit	Core chain and software signing built
Connectivity and alerts	Store-and-forward telemetry, event clips, notifications and acknowledgement	Local outbox built; production transport next
Integration layer	OpenAPI, MQTT schemas, webhooks and CSV/Parquet exports	Contracts and adapters funded next
Support and governance	Installer pack, runbooks, backup/restore, incident response and rollback	Release targets defined; operational pack next

Commercial deliverables at the end of the funded programme

- 50 commissioned validation units with serialised inventory, device identity, installer records and acceptance-test results.
- A deployable control plane with tenant boundaries, device registry, fleet API, spatial policies, media handling, alerts and evidence export.
- A documented release unit: edge agent, control plane, web workspace, schemas/SDK and operations pack.
- Pilot reports covering network loss, power recovery, heat, storage, camera/GNSS quality, notification timing, support effort and unit economics.
- A partner pack for installers, insurers, response providers and regulated identity or communications services.

Customer promise: Phepha should sell measured operational continuity and evidence quality. Recovery, emergency response, official identity verification and vehicle immobilisation remain authorised-partner services until separately approved.

DEVICE AND COMPONENTS

A modular hardware path protects affordability and engineering discipline



Concept only. The production unit requires automotive electrical design, protected power, environmental testing and connector validation.

COMPONENT	CURRENT / PROPOSED	ROLE	ENGINEERING GATE
Compute	Existing Raspberry Pi edge prototype	Camera, policy, local queue and evidence functions	Benchmark now; custom/CM board later
Camera	USB UVC camera today	Driver-facing video and event context	Production sensor and mounting test
GNSS	UART GNSS module and antenna	Position, fix quality, time and geofence input	Antenna/EMC/vehicle placement test
Vehicle data	Isolated CAN/OBD interface and harness	Approved read-only diagnostics and vehicle signals	Validate per vehicle; no raw write
Power	12/24V to regulated 5V converter, fuse and enclosure	Protected vehicle supply and controlled shutdown	Automotive-grade redesign required
Impact	Optional calibrated IMU	Evidence trigger and impact context	False-positive and mounting study
Storage	Bounded local queue and event media	Survive connectivity loss without filling disk	Retention and wear validation

Three configurations, each with an explicit cost boundary

PACKAGE	BOUNDARY	PILOT / TARGET BOM	PLANNING PRICE
Phepha Connect	GNSS, geofences, trips, dwell, offline queue	R2,450 / R1,250	R1,999 + R149/month
Phepha Protect	Connect + camera evidence, local driver verification, event clips	R6,200 / R4,200	R6,999 + R499/month
Phepha Command	Protect + approved read-only CAN/OBD analytics	R7,800 / R5,300	R8,999 + R699/month

Prices and BOMs are 2026 planning assumptions before VAT, installation, connectivity, warranty and sector-specific accessories. Supplier quotes and field installation time must validate them before public sale.

Safety rule: The funded pilot is passive CAN only. No moving-vehicle immobilisation, automatic braking or remote fuel/power interruption.

ARCHITECTURE

Local autonomy, secure transport and a separate control plane

Vehicle edge

Camera and GNSS acquisition, local face identity, read-only CAN/OBD, geofence policy and SQLite outbox run on the vehicle. Events are recorded before network delivery. Video is event-first and live-on-demand to control cellular cost.

Secure transport

Production transport uses MQTT over TLS, per-device credentials, signed commands, queued telemetry and resumable event-media delivery. The device initiates outbound communication; no public inbound SSH or web dashboard is required.

Control plane

A separately deployed fleet API, PostGIS spatial store, media service, notification router, evidence registry and partner adapters support public users without touching the existing learning platform or exposing the Pi.

Release acceptance targets

TEST	CONDITION	ACCEPTANCE TARGET
Network loss	24 hours disconnected	No accepted event loss; deterministic replay after reconnection
Power interruption	Hard removal and restoration	Queue integrity; service restarts without manual repair
Resource budget	Raspberry Pi target	Application RSS below 350 MB; average compute below 1.5 cores
Thermal	Sustained field workload	Below 75 C under the defined enclosure and ambient profile
Evidence	Independent export check	Hash chain and signature validate outside the dashboard
Storage	Offline media and event backlog	Bounded retention, disk headroom and oldest-first controlled pruning

Important: These are release targets from the productisation plan, not completed field results. The funded pilot exists to measure them.

GO TO MARKET AND BUSINESS MODEL

Start where failure is expensive and connectivity is imperfect

SECTOR	JOB TO BE DONE	PHEPHA VALUE	ENTRY MOTION
Logistics	Route and dwell control	Proof of delivery, driver identity and exception evidence	Paid 10-unit proof, then 50-unit validation
Mining	Restricted-zone operating policy	Vehicle proximity, shift evidence and weak-link operation	Second vertical after core reliability
Security	Event-led response	Tamper alerts, live-on-demand video and custody records	Response partnership required
Insurance	Claims-grade context	Verified timeline, policy compliance and exportable dossier	Validation and insurance partnership

Revenue architecture

- Hardware: upfront edge device or add-on, priced for positive contribution after landed cost, installation, warranty and replacement reserve.
- Subscription: per active vehicle per month for operations, evidence retention, alerts, policy and device management.
- Services: installation, systems integration, analytics, enterprise support and response partnerships.

OFFER	COST ASSUMPTION	PRICE POSITION	INTERPRETATION
Connect	R1,250 target BOM	R1,999 + R149/month	Lowest-cost entry; alerts and telemetry, no continuous video
Protect	R4,200 target BOM	R6,999 + R499/month	Camera evidence and driver verification add higher value and support load
Command	R5,300 target BOM	R8,999 + R699/month	Read-only diagnostics; vehicle compatibility pack required
Blended planning mix	40% / 35% / 25%	Approx. R409 monthly ARPV	Base-case model input, not a forecast or customer commitment

Commercial principle: Margin improves through a production board, volume procurement, lower installation time and disciplined data retention - not by treating bench hardware as finished automotive product.

COMPETITION

Incumbents define the baseline; Phepha must win on measured outcomes

Netstar, Cartrack, Tracker and global ecosystems such as MiX by Powerfleet already market combinations of tracking, geofences, cameras, driver analytics, maintenance and recovery operations. Phepha should not claim category superiority until a comparative field pilot proves specific metrics. [12]-[15]

CAPABILITY	INCUMBENT BASELINE	PHEPHA RESPONSE
Tracking and geofences	Standard and mature	Required baseline plus offline policy and replay
Camera and driver analytics	Already sold at scale	Event-first video and local identity boundary
Recovery and 24/7 bureau	Major local advantage	Partner capability, not a software claim
Fuel, CAN and maintenance	Expected fleet breadth	Read-only capability packs, validated per vehicle
Evidence and integrations	Available, often across systems	Linked dossier, open schemas and exportability

Defensibility to build

- A tested offline event contract that preserves policy, driver, location, media and acknowledgement context across network loss.
- A growing library of vehicle-specific read-only signal packs, installation knowledge and quality data.
- A trustworthy evidence format that customers and partners can verify independently and export without lock-in.
- A sector policy library for dwell, route corridors, restricted zones, shift controls, escalation and retention.
- Operational learning from pilots: false alerts, antenna placement, camera conditions, support burden and response outcomes.

Claim discipline: Open-source components reduce build time; they are not the moat. The moat must become validated deployment knowledge, integrated evidence, customer workflow adoption and trusted partnerships.

EXECUTION**A 12-15 month programme converts the prototype into field evidence**

MONTHS	PHASE	WORK	GATE / OUTPUT
0-3	Industrialise	Cloud MVP; threat model; protected power; device identity; test fixtures	Release design approved; supplier and certification route
4-6	Prove 10 units	Network-loss, power, heat, vibration, GNSS, camera, alert and evidence tests	10 commissioned units; acceptance report; first paid pilot
7-11	Expand to 50	Multi-sector validation; installer pack; support runbooks; cost telemetry	50 commissioned units; measured reliability and unit economics
12-15	Convert to paid	Anchor customers; channel partners; certification pathway; seed metrics	Paid contracts, renewal signal and investment-ready data room

Workstreams

- Product and cloud: multi-tenant workspace, device registry, policy service, APIs, evidence storage and public TLS access.
- Hardware and field engineering: protected power, enclosure, harness, mounting, CAN isolation, GNSS/camera placement and acceptance fixtures.
- Security and privacy: per-device identity, secrets handling, access control, audit, data map, retention, threat model and incident response.
- Pilot operations: installer training, support rota, monitoring, issue triage, rollback, customer review and documented acceptance.
- Commercial validation: pricing tests, customer interviews, paid LOIs/contracts, partner agreements, service-cost measurement and renewal criteria.

Stage-gate governance

1. No move from bench to vehicle without electrical, data and installation acceptance criteria.
2. No customer claim without a defined metric, baseline, observation window and evidence owner.
3. No actuation scope without separate hazard analysis, qualified engineering, legal review and authorised installation pathway.
4. No scale purchase until the 10-unit proof establishes failure rates, support effort and landed economics.

MONITORING AND EVALUATION

Funders receive a measurable evidence pack, not a feature list

OUTCOME	MEASURE	PILOT ACCEPTANCE APPROACH
Offline continuity	Accepted events lost after 24-hour link outage	0; replay order and timestamps independently checked
Power recovery	Successful automatic service recovery after hard power removal	100% across defined test cycle
GNSS quality	Valid-fix availability by route and antenna installation	Baseline then improvement by installation revision
Notification	Event-to-delivery and delivery-to-acknowledgement time	Reported by channel, severity and link condition
Evidence integrity	Independent dossier verification rate	100% for accepted pilot dossiers
Device health	CPU, memory, temperature, storage and restart rate	Within release target and no uncontrolled disk exhaustion
Operations	Manual minutes to reconstruct a defined incident	Measured before/after with participating customer
Commercial	Installed gross contribution, monthly service cost and willingness to pay	Positive path demonstrated by sector and configuration
Adoption	Active use, alert acknowledgement and policy changes	Reported per role without vanity engagement metrics

Public-interest outcomes

- Local capability in edge computing, automotive installation, device operations and evidence engineering.
- A South African technology product designed around weak connectivity, privacy boundaries and customer data portability.
- A measurable platform for safer operating policy and better incident reconstruction, without claiming that software alone prevents accidents.
- A pathway to local assembly, installer partnerships and sector-specific deployment knowledge; job and local-spend targets must be set from verified supplier and hiring plans.

Reporting cadence: Monthly technical and commercial scorecard; phase-gate report at months 3, 7, 11 and 15; funder access to the agreed evidence register and redacted pilot dossier samples.

FUNDING ASK

R3.5m buys the de-risking milestones investors need

The budget is a planning model, not a valuation and not a final grant schedule. It must be reconciled to supplier quotations, payroll, tax, VAT, import exposure and each funder's eligible-cost rules before submission.

BUDGET LINE	AMOUNT	SHARE	PURPOSE
Hardware and spares	R600,000	17.1%	50-unit validation pool, protected power, enclosures, harnesses, storage and spares
Edge and product engineering	R850,000	24.3%	Edge software, device management, field reliability, test automation and UX
Cloud, security and evidence	R550,000	15.7%	Control plane, tenant isolation, telemetry, media, signing, backups and monitoring
Certification and testing	R450,000	12.9%	Electrical, RF/type-approval, EMC, lab, penetration and independent assurance work
Field fitment, data and operations	R400,000	11.4%	Installation, connectivity, storage, travel, test routes and pilot support
Go-to-market and customer success	R300,000	8.6%	Pilot conversion, installer/channel enablement, sales material and account reviews
Legal, privacy and insurance	R200,000	5.7%	POPIA, contracts, product liability, safety boundary and professional review
Contingency	R150,000	4.3%	Import volatility, replacement units and controlled programme risk
TOTAL	R3,500,000	100%	12-15 month validation programme

CAPITAL STRUCTURE AND MILESTONE OPTIONS

Fund the next evidence gate, then earn the right to scale

GATE	CAPITAL	HORIZON	PURPOSE
10-unit proof	R1.35m	6 months	Bench-to-field reliability, one controlled customer workflow and supplier evidence
50-unit validation	R3.5m	12-15 months	Recommended: multi-environment proof, paid anchors, compliance path and repeatable operations
100-unit readiness	R6.8m	18 months	Only after proof: broader working capital, channel rollout and production engineering

Preferred capital structure

- Up to R1.0m non-dilutive, challenge, supplier-development or paid-pilot capital for prototype industrialisation, test fixtures, field demonstration and eligible certification work.
- R2.5m equity or convertible funding for product team, control plane, commercial validation, working capital and the portions not eligible under public funding rules.
- Anchor-customer contribution through paid pilots, installation access, operating data, acceptance-test participation and executive review.

Drawdown gates

1. Initial tranche: team/legal/entity verification, detailed budget, supplier quotes and signed pilot test plan.
2. Proof tranche: production design review, threat model, protected-power test and 10-unit customer agreement.
3. Validation tranche: 10-unit acceptance results, updated unit economics and approved 50-unit deployment plan.

CAPITAL STRATEGY

Match each capital source to the risk it is designed to remove

SOURCE	CAPITAL TYPE	FIT	PHEPHA APPROACH
TIA	Public innovation funding	Prototype industrialisation, demonstration, testing and commercialisation	Align evidence-backed work packages and current eligible costs [2]
NEF	Black-owned enterprise finance	Start-up, expansion and growth instruments	Confirm current instrument, ownership, security and repayment fit [3]
SEDFA	Small-enterprise finance and support	Enterprise development, finance and market access	Confirm current programme window and technology eligibility [4]
Industry matching	OEM, insurer, mine or logistics partner	Test sites, fitment access, operating data and commercial validation	Use clear data rights, safety boundaries and acceptance criteria
Private capital	Equity or convertible	Team, product, working capital and repeatable deployment	Target investors comfortable with hardware-enabled recurring revenue
Anchor customers	Paid pilot / ESD / co-funding	Operational access and proof of willingness to pay	Strongest market signal; structure milestones and conversion terms

Recommended application sequence

1. Secure three customer problem statements and at least one pilot LOI with a paid or co-funded structure.
2. Complete CIPC, ownership, IP assignment, tax, banking, founder biography and cap-table materials.
3. Submit a TIA-aligned technical work package and parallel NEF/SEDFA readiness pack using the same verified milestones.
4. Close the hybrid round against the same milestones, avoiding conflicting reporting, IP or security obligations.
5. Use 10-unit proof and 50-unit validation evidence to approach larger private and development-finance investors for manufacturing and market expansion.

Capital discipline: Use non-dilutive and customer capital for defined technical proof wherever eligible; reserve equity for durable team, software, working capital and market expansion. Reconfirm every programme's current call, terms and eligible costs before applying.

TRUST, COMPLIANCE AND RISK

Safety and privacy are release gates, not marketing language

Governance commitments

- POPIA: documented purpose, lawful basis, minimisation, retention, access audit, data-subject handling and biometric governance; determine whether prior authorisation applies. [6]-[7]
- ICASA: determine type-approval requirements for the final radio and telecommunications configuration before commercial distribution. [8]
- Insurer and response acceptance: independent product, installation and operating pathway before making security, response or recovery claims.
- Automotive safety and cybersecurity: hazard analysis and ISO 26262/ISO 21434-informed engineering for any future vehicle integration; pilot remains read-only. [9]-[11]
- Identity: local driver-face matching is not official identity verification; regulated checks use authorised partners. Raw ID documents and reusable biometric templates do not belong on the vehicle unit.

RISK	SEVERITY	CONTROL	OWNER ROLE
Electrical or vehicle damage	High	Protected power, isolation, fuse, qualified installer, vehicle-specific acceptance	Hardware lead
False alerts / bad GNSS	Medium	Fix-quality gating, antenna placement tests, calibration, policy replay and review	Product lead
Privacy / biometric misuse	High	PIA, minimisation, role control, retention, audit, consent/lawful basis and partner boundary	Information officer
Cloud or network outage	Medium	Store-and-forward, bounded queues, recovery tests, backups and control-plane redundancy	Platform lead
Evidence disputed	High	Hash chain, signatures, trusted time strategy, access audit and independent verification	Security lead
Unit economics fail	High	10-unit proof and 50-unit cost telemetry, configuration tiers, installation-time reduction and repricing gate	Commercial lead
Overclaim against incumbents	Medium	Approved claims register, comparative metrics and legal review before publication	Executive sponsor
Supplier / import exposure	Medium	Dual sourcing, spares, local assembly plan and controlled contingency	Operations lead

Prohibited pilot scope: No raw CAN write, remote fuel cut, moving-vehicle immobilisation, automatic braking, autonomous emergency call or automated disciplinary decision.

INVESTOR READINESS

Complete the evidence room before external circulation

ROOM	REQUIRED EVIDENCE	CURRENT POSITION
Corporate	CIPC record; cap table; shareholder agreements; tax/banking status; IP assignments; founder biographies	SAICTS records supplied; cap table and IP assignments still required
Commercial	Customer interviews; pilot LOIs/contracts; pricing tests; pipeline; references; installer/channel plan	Obtain before broad investor outreach
Technical	Architecture; threat model; BOM quotes; test reports; source/release controls; backup/restore; known limits	Working prototype, deck and financial model exist; formal reports next
Governance	POPIA data map/PIA; information officer; retention; contracts; safety boundary; risk register; insurance	Professional review required
Financial	15-month monthly model; payroll; VAT/tax; cash flow; runway; supplier terms; unit-economics scenarios	Planning assumptions require reconciliation
Pilot	Test plan; baseline; acceptance criteria; customer roles; consent/notices; incident process; reporting cadence	Convert roadmap into signed schedule

The diligence narrative

Phepha should present itself as a disciplined South African mobility-intelligence venture with a working edge prototype and a credible plan to produce field evidence. It should not present prototype screens, open-source components or planning assumptions as completed certification, customer traction or defensible superiority.

Investor decision package

- This investment memorandum for narrative, programme design and source-backed assumptions.
- The editable investor deck for meetings and a shorter first conversation.
- A live, controlled prototype demonstration using test data and a disclosed connectivity state.
- A pilot term sheet specifying fleet size, installation, data rights, measures, exclusions, reporting and success gates.
- A secure data room containing the verified corporate, commercial, technical, governance and financial records above.

Diligence gates: Renew the B-BBEE affidavit/certificate that expired on 15 April 2026. Provide an accredited company ISO 27001 certificate and scope, or remove the company-certification claim. Keep tax PINs, address proofs, IDs, credentials and customer-confidential material in restricted access only.

MARKET AND FINANCIAL PLANNING CASE

A large reference market, entered through a narrow proof sequence

South Africa had 13.68 million registered vehicles in December 2025. Trucks, buses and minibuses represented 826,146 vehicles, but that is a reference category rather than a serviceable obtainable market. Phepha's near-term market is the subset of fleets with a costly combination of weak connectivity, incident-evidence gaps and operational-policy needs. [1]

LAYER	PLANNING REFERENCE	DISCIPLINE
TAM context	13.68m registered vehicles	National context only; not a revenue claim
Initial category reference	826,146 trucks, buses and minibuses	Prioritise logistics, mining, security and insurance-linked fleets
Proof market	10 units	One controlled route or site; establish technical and workflow baselines
Validation market	50 units	Multiple environments; quantify uptime, support, economics and conversion
Commercial expansion	150 new units in 2027 planning case	Requires paid pilots, channel capacity and working capital

Formula-driven base case

YEAR	CLOSING ACTIVE VEHICLES	REVENUE	EBITDA
2027	150	R1.343m	(R3.629m)
2028	588	R4.736m	(R3.023m)
2029	1,441	R10.828m	(R1.025m)
2030	3,026	R22.009m	R3.572m
2031	5,784	R41.115m	R12.357m

Planning case, not guidance: The model uses explicit package mix, price, BOM, churn, service COGS, deployment and operating-cost assumptions. It is unaudited, pre-revenue scenario planning. Supplier quotations, signed pilots and observed retention must replace assumptions before an investment committee relies on it.

FEASIBILITY

The proposition is technically reachable; the investment removes the remaining proof risk

DIMENSION	EVIDENCE NOW	NEXT GATE
Technical	Working Pi edge dashboard, camera, GNSS, offline queue, geofence and local identity functions	Protected power, enclosure, field reliability, signed OTA and multi-tenant cloud
Operational	Bench workflow and event evidence demonstrated	Qualified fitment process, support rota, rollback, spares and 50-unit operations
Commercial	Three tier architecture and formula-driven unit economics	Paid LOIs, willingness-to-pay tests, installation cost and renewal evidence
Regulatory	Read-only pilot boundary and POPIA/ICASA requirements identified	DPIA, information governance, type-approval determination and professional sign-off
Financial	R1.35m / R3.5m / R6.8m milestone options modelled	Supplier quotes, monthly cash flow, working-capital facility and follow-on funding path
Delivery	SAICTS legal entity, web presence and demonstrable software artefacts	Dedicated product ownership, IP assignments, QA evidence and customer implementation plan

Cost-benefit logic for a pilot customer

- Measure current incident-review minutes, blind intervals, unacknowledged alerts, route exceptions and evidence retrieval effort before installation.
- Calculate benefit only from observed changes in the pilot; do not attribute national crash, theft or insurance losses to Phepha without a customer-specific baseline.
- Compare monthly service cost with measured administrative time, downtime, claims-cycle or operational-policy value, including false-alert and support burden.

Feasibility conclusion: Proceed through gated field validation. Do not scale procurement or make safety, recovery, insurance or immobilisation claims until the relevant test, partner and approval evidence exists.

CONNECTIVITY STRATEGY

Use the cheapest dependable link for each type of data

LINK	ROLE	BEST FIT	LIMIT / COST
Cellular	Primary wide-area control and telemetry	Open-road fleets and live alerts	Recurring SIM/data cost and coverage gaps
Low-bandwidth LoRa / mesh	Event codes, health, GNSS and acknowledgements	Fixed mine, campus, depot or corridor coverage	Not suitable for live video; gateways and backhaul still required
Wi-Fi / depot offload	Bulk clip, update and diagnostic transfer	Known depots and yards	Requires managed AP coverage, security and predictable dwell
Wi-Fi HaLow candidate	Longer-range IP telemetry at controlled sites	Future site trial after local RF review	Hardware availability, ICASA plan and field validation
Store-and-forward	Local continuity independent of link	Every package and every route	Bounded storage, replay ordering and data-age visibility

Reference deployment pattern

1. The vehicle records policy events locally first and sends compact telemetry over the best available trusted link.
2. A site gateway relays low-bandwidth events to the cloud; loss of the gateway does not stop local evidence capture.
3. Large media waits for cellular policy permission or a depot Wi-Fi window; live video remains operator-initiated.
4. The dashboard shows link type, evidence age and backlog so staff can distinguish offline operation from device failure.

Mesh boundary: A mesh option can reduce wide-area data usage on repetitive controlled routes, but it is not free connectivity and cannot carry the camera proposition by itself. Site survey, gateways, spectrum rules, power, maintenance and backhaul remain part of the commercial design.

STRATEGIC ASSESSMENT

Differentiation comes from integration discipline, not feature count

SWOT	ASSESSMENT
Strengths	Working edge prototype; offline-first event model; modular tiers; South African operating context; open integration contracts
Weaknesses	Pre-scale hardware; no recovery bureau; limited field reliability data; supplier and installation economics not yet proven
Opportunities	Weak-link fleet operations; evidence-led claims and audits; mines/campuses; local installer ecosystem; integration beside incumbents
Threats	Well-capitalised incumbents; component volatility; privacy or biometric misuse; vehicle damage; long enterprise sales cycles; overclaim risk

Adopt versus build

DECISION	SCOPE	WHY
Adopt	Mosquitto, PostGIS, MediaMTX, OpenTelemetry, object storage, standard cryptography	Faster path; mature primitives; avoid undifferentiated infrastructure
Build	Offline event contract, policy/evidence graph, operator workflow, device profiles and sector packs	Product differentiation and deployment learning
Partner	Identity/KYC, response, recovery, insurance, fitment, RF and automotive assurance	Regulated or operational capabilities software cannot credibly replace
Defer	Raw CAN writes, remote fuel cut, moving immobilisation and autonomous safety actions	Disproportionate safety, cyber, legal and product-liability risk

Competitive position: Phepha can coexist with Tracker, Netstar, Cartrack or Powerfleet where a customer already has recovery or telematics. The near-term wedge is offline operational evidence and configurable policy, not a claim to replace every incumbent function on day one.

SOCIAL AND ECONOMIC IMPACT

Impact is strongest when it is measured from jobs to institutional learning

ORDER	MECHANISM	PLANNING OUTCOME	EVIDENCE
1st order	Direct deployment	6 direct SAICTS jobs; 4 installer/channel livelihoods; 10 youth technical placements in the 2027 planning case	Payroll, contracts, placement records, local-spend invoices
2nd order	Operational spillover	Faster incident review, less blind time, installer income and more consistent route/geofence response	Before/after workflow and response metrics
3rd order	Institutional spillover	More usable claims evidence, mine/logistics insight and safer-policy auditing without automated punishment	Customer KPI, DPIA, audit logs and matched baseline
4th order	Ecosystem capability	Local assembly knowledge, IoT/edge skills, reusable standards and potential export services	Local value share, certifications, supplier and export records

Responsible scaling principles

- Do not turn biometric, location or driver-performance data into opaque automated disciplinary decisions.
- Give customers and affected workers clear notices, retention limits, access routes and human review where decisions have material consequences.
- Track local content and livelihoods without double counting temporary installers, trainees or indirect jobs.
- Publish pilot outcomes with counterfactuals and adverse effects, not only success stories.

National relevance: South Africa recorded 11,485 road fatalities and an estimated R198.30bn crash cost in 2025, while transport employed about 1.12m people in Q2 2025. These are problem-context indicators, not savings or impact attributable to Phepha. [1], [5]

COMPANY AND LEADERSHIP

A youth-owned South African technology company building from a functioning prototype

FIELD	VERIFIED / SUPPLIED DETAIL
Legal entity	SAICTS (Pty) Ltd
Registration	2024/170173/07
CSD supplier number	MAAA1478550
Ownership, company-supplied	100% Black-owned; 100% youth-owned; 34% Black female; 33.33% disability-inclusive
Public presence	www.saicts.co.za and www.phepha.org.za
Operating base	Durban, South Africa

Founding leadership

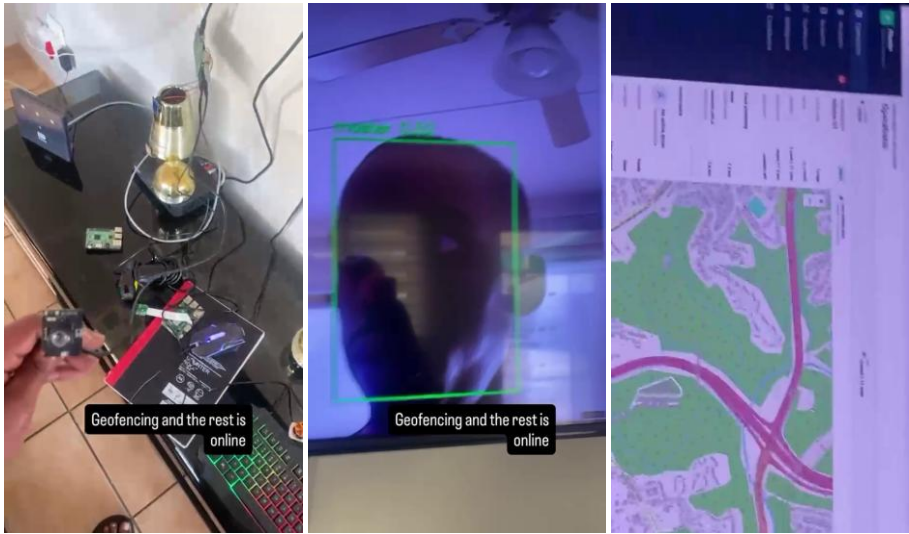
FOUNDER	ROLE	FOCUS
Olwethu U. Masiza	Chief Executive Officer	Executive leadership and stakeholder development
Samkelo S. Mngoma	Chief Operating Officer and Technology Lead	Product delivery, operations, systems and technical coordination
Mkhuseli M. Diya	Chief Financial Officer and Project Lead	Financial stewardship and programme coordination

Samkelo Mngoma holds Business Management NQF Level 4 and N5 Management Assistant qualifications. His supplied leadership record includes serving as Secretary General and President General at Esayidi TVET College, participation in provincial and national SATVETSA structures, policy input, event and accountability coordination, and leadership training through the Office of the Premier.

Assurance wording: The company profile refers to ISO 27001:2022 certification. Before external reliance, SAICTS should provide an accredited company certificate and scope. An individual SkillsFront credential demonstrates personal learning but is not a substitute for organisational certification.

PROTOTYPE EVIDENCE AND INVESTOR ACCESS

The live system is demonstrable; access remains controlled



Unedited frames from the two supplied August 2026 prototype videos: device bench, face detection and geofence/map workflow. Full originals are preserved in the restricted investor data room.

RESOURCE	LINK	ACCESS
Phepha public website	https://www.phepha.org.za	Public
SAICTS company website	https://www.saicts.co.za	Public
Live Phepha prototype	https://vehicle.92.4.130.103.nip.io	Login required; credentials shared out of band
Leadership interview	https://youtu.be/lrgfNWR6C5o	Public
Investor access	mailto:admin@saicts.co.za	Request controlled diligence access

Evidence status legend

- Demonstrated: visible in the supplied working prototype or source artefacts.
- Pilot target: technically planned and budgeted, but not yet accepted in field operation.
- Partner-gated: requires a qualified installer, regulated provider, insurer, response organisation or approval body.

Access hygiene: No public pack contains passwords, tax PINs, proof of address, identity documents or customer-confidential material. The live prototype remains authenticated, and master credentials must never be placed in investor documents or link pages.

SOURCE REGISTER

Official and primary sources used in this memorandum

- [1] RTMC, State of Road Safety Report 2025: https://www.rtmco.co.za/images/rtmc/docs/reports/State_of_Road_Safety/State-of-road-safety-report-2025.pdf
- [2] Technology Innovation Agency, Funding Instruments: <https://www.tia.org.za/funding-instruments/>
- [3] National Empowerment Fund, Funding Solutions: <https://www.nefcorp.co.za/products-services/>
- [4] Small Enterprise Development and Finance Agency: <https://www.sedfa.org.za/>
- [5] Statistics South Africa, Quarterly Employment Statistics Q2 2025: <https://www.statssa.gov.za/?p=18891>
- [6] South African Government, Protection of Personal Information Act: <https://www.gov.za/documents/protection-personal-information-act>
- [7] Information Regulator, Prior Authorisation: <https://eservices.inforegulator.org.za/priorauthorisation/default.aspx>
- [8] ICASA, Type Approval: <https://www.icasa.org.za/pages/type-approval>
- [9] ISO, Road Vehicles Functional Safety / ISO 26262 overview: <https://www.iso.org/publication/PUB200262.html>
- [10] ISO, Road Vehicles Cybersecurity Engineering / ISO 21434: <https://www.iso.org/standard/70918.html>
- [11] UNECE, UN Regulation No. 155 Cyber Security: <https://unece.org/transport/documents/2021/03/standards/un-regulation-no-155-cyber-security-and-cyber-security>
- [12] Tracker, Business Fleet Solutions: <https://www.tracker.co.za/for-business/elevate>
- [13] Netstar, AI Camera Solutions: <https://www.netstar.co.za/ai-camera-solutions>
- [14] Cartrack, Driver Safety: <https://www.cartrack.co.za/platform/features/safety/driver-safety>
- [15] MiX by Powerfleet, AI Dashcams: <https://www.mixtelematics.com/za/business-products/ai-dashcams/>
- [16] National Department of Transport, Freight Logistics Roadmap: <https://www.transport.gov.za/wp-content/uploads/2023/02/Roadmap-for-the-Freight-Logistics-System-in-South-Africa-FINAL-FOR-RELEASE.pdf>
- [17] ICASA, National Radio Frequency Plan 2026: <https://www.icasa.org.za/news/2026/icasa-publishes-an-updated-national-radio-frequency-plan-2026>
- [18] LoRa Alliance, LoRaWAN for Developers: https://lora-alliance.org/resource_hub/what-is-lorawan/
- [19] Meshtastic documentation: <https://meshtastic.org/docs/>
- [20] National Regulator for Compulsory Specifications: <https://www.nrcc.org.za/>

Internal evidence base

- README_EDGE_DASHBOARD.md - current Phepha edge functions and network boundary
- PRODUCTIZATION_AND_SUPPORT.md - release units, support model and verification gates
- PHEPHA_TRUST_ORCHESTRATION.md - identity and POPIA boundary
- OPEN_SOURCE_STRATEGY_SCORECARD.md - build-versus-adopt and competition discipline
- OPEN_SOURCE_ADOPTION_MATRIX.md - adoption status and resource constraints
- Current operations, geofence and evidence screenshots from the working edge prototype
- SAICTS company profile, CIPC-linked business details, tax-compliance document and B-BBEE certificate supplied for restricted diligence
- Two original August 2026 demonstration videos supplied by the founder
- SAICTS Phepha FleetIQ Financial Model 2026 - formula-driven package, pilot, five-year, scenario and impact workbook

Source caution: Funding programmes, prices and eligibility rules change. Reconfirm the current call, closing date, instrument terms and eligible-cost rules immediately before submission.