

COMPAS

| COMPLIANCE PROCESS AUTOMATION SERVICE

Executive Vision Document

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ROLE
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DATE
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VERSION
2.0

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| Executive Summary

COMPAS (Compliance Process Automation Service) is an intelligent platform designed to transform how Sinar Mas Group entities manage compliance, governance, and standard operating procedures. Through real-time monitoring, predictive risk assessment, and automated regulatory adaptation, COMPAS addresses the critical challenge of maintaining compliance across 40+ subsidiaries while reducing manual effort and minimizing regulatory risk exposure.

The Vision: Make compliance invisible yet omnipresent

—a system that works silently in the background, ensuring every process, every document, and every employee action aligns with regulations, while surfacing only what matters to decision-makers.

The Problem

Current State Pain Points

Challenge	Impact
Fragmented Compliance	40+ SMMA subsidiaries each managing compliance independently with inconsistent standards
Reactive Approach	Issues discovered during audits, not before—leading to fines and remediation costs
Manual Processes	Compliance officers spend 60–70% of time on documentation, not strategic risk management
Regulatory Lag	New regulations (OJK, BI, MOE 2025) require months to cascade across all entities
Knowledge Silos	Institutional compliance knowledge lives in people's heads, not systems
Audit Anxiety	Preparation for audits is stressful, time-consuming, and resource-intensive
Data Privacy Gaps	No unified approach to PDP Law 2023 compliance across entities

The Cost of Non-Compliance

Category	Impact	Estimated Annual Exposure
Financial	OJK fines, MOE environmental penalties	Rp 5–50 Billion
Operational	License suspension, business halt	Rp 100+ Billion revenue at risk
Reputational	Investor confidence, credit ratings	Long-term valuation impact
Strategic	M&A valuation, partnership opportunities	Deal value reduction 10–20%

Baseline Metrics (Current State)

Metric	Current State	Industry Benchmark
Audit preparation time	4–6 weeks	1–2 weeks
Compliance FTE hours on documentation	60–70%	30–40%
Regulatory update cascade time	2–3 months	2–4 weeks
Compliance violations per audit	8–12 findings	2–4 findings
Employee SOP comprehension rate	~60%	85%+

The Opportunity

Regulatory Tailwinds

- MOE Regulation No. 20/2025** - New environmental monitoring requirements for mining (effective Oct 2025)
- OJK Strengthening** - Increased scrutiny on financial services compliance
- PDP Law 2023** - Personal Data Protection requirements (mandatory compliance)
- ESG Pressure** - Investors demanding better governance and transparency
- Digital Transformation** - Regulators expecting digital compliance reporting

Market Context

Market Segment	2024 Size	2030 Projection	CAGR
Compliance Monitoring	\$1.8B	\$5.2B	19.4%
RegTech	\$14.9B	\$106.9B (2035)	19.6%
Process Mining	\$2.46B	\$42.7B (2032)	42.0%

SQE's Unique Position

- Built-in Customer Base:** 40+ SMMA subsidiaries ready for pilot and deployment
- Group Synergy:** Potential expansion to Mining pillar (DSSA/GEMS - USD 3B revenue)
- Local Expertise:** Deep understanding of Indonesian regulatory landscape (OJK, BI, MOE)

- **Proven Track Record:** Successful digital products (ASJ, GARASI Dealer)

The Solution: COMPAS

Product Definition

COMPAS is an intelligent compliance management platform that:

1. **Monitors** operational processes in real-time against SOPs and regulations
2. **Detects** deviations and potential compliance risks before they become violations
3. **Adapts** automatically when regulations change, with human-approved SOP updates
4. **Enables** employees to understand and follow compliance through contextual engagement
5. **Reports** audit-ready documentation with generated insights
6. **Protects** personal data in compliance with PDP Law 2023

Core Value Propositions

Stakeholder	Value Delivered	Quantified Impact
C-Level / Board	Single dashboard showing enterprise-wide risk exposure in Rupiah	80% faster risk visibility
Compliance Officers	Focus on strategic risk management, not documentation	70% reduction in manual work
Managers	Real-time visibility into team compliance; actionable alerts	50% faster issue resolution
Employees	Easy-to-understand SOPs; contextual learning; assistant	40% better SOP comprehension
Auditors	Pre-compiled audit trails; explained findings	70% faster audit cycles

Key Features

1. Intelligent Risk Dashboard (C-Level View)

Purpose: One-screen visibility into enterprise-wide compliance health

Components: - **Risk Heatmap** - Visual map of all entities: RED/YELLOW/GREEN status with trend indicators - **Financial Exposure Ticker** - Real-time "Rp X.X B at risk" calculation - **Regulatory Countdown** - Upcoming deadlines with days remaining - **Cross-Entity Benchmarking** - Performance comparison across subsidiaries - **Drill-Down Capabilities** - Click-through to entity/department/individual level

2. Real-Time Deviation Detection & Alerts

Purpose: Catch compliance issues before they become violations

How It Works: - System continuously monitors process logs, documents, and transactions - Compares against SOP rules and regulatory requirements - Generates alerts with severity levels and confidence scores - Provides explained reasoning ("This transaction flagged because...")

Human-in-the-Loop Workflow:



Risk Mitigation: - Low confidence alerts escalate to human review - All decisions logged with full audit trail - Explainability layer for every flagged item - RAG (Retrieval-Augmented Generation) to ensure accuracy

3. Dynamic Regulatory Adaptation Framework

Purpose: Stay current with evolving regulations without manual SOP rewrites

The Flow:



Key Components: - **OCR-to-Structured-Rule Engine** - Process Indonesian regulatory PDFs (often with handwritten notes) - **Knowledge Graph Layer** - Map relationships between regulations and SOPs - **Regulatory Scenario Simulations** - Model impact of sudden regulatory changes - **Regional Tuning** - Locale-specific adjustments for Bahasa Indonesia variations

4. Compliance Assistant (Natural Language)

Purpose: Democratize compliance knowledge across the organization

Capabilities: - Answer compliance questions in Bahasa Indonesia (formal & informal) - Cite relevant SOPs and regulations with source links - Explain "why" behind compliance requirements - Guide document compliance checking - Available 24/7 for all employees

Technical Safeguards: - RAG architecture to ground responses in actual SOPs/regulations - Confidence scoring on every response - "I don't know" fallback when uncertain - Human escalation path for complex queries

Use Cases: - "Apa syarat untuk approve loan di atas 500 juta?" - "Dokumen apa saja yang perlu untuk audit OJK?" - "Apakah transaksi ini sesuai dengan SOP anti-money laundering?"

5. Contextual Compliance Engagement Framework

Purpose: Make compliance engaging without trivializing regulatory risks

Hybrid Engagement Model:

Risk Level	Engagement Approach
Low-Risk Tasks	Light gamification (badges, points, streaks)
Medium-Risk Tasks	Structured learning with assessments
High-Risk Compliance	Compulsory rule-based workflow, senior escalation

Features: - **Personal Compliance Score** - Individual dashboard with achievement tracking - **Department Performance Metrics** - Team-based compliance visibility - **Contextual Quizzes** - Learning triggered by actual work context - **Achievement Timeline** - Visual journey of trainings, certifications - **Local-Centric Incentives** - Link to real performance metrics

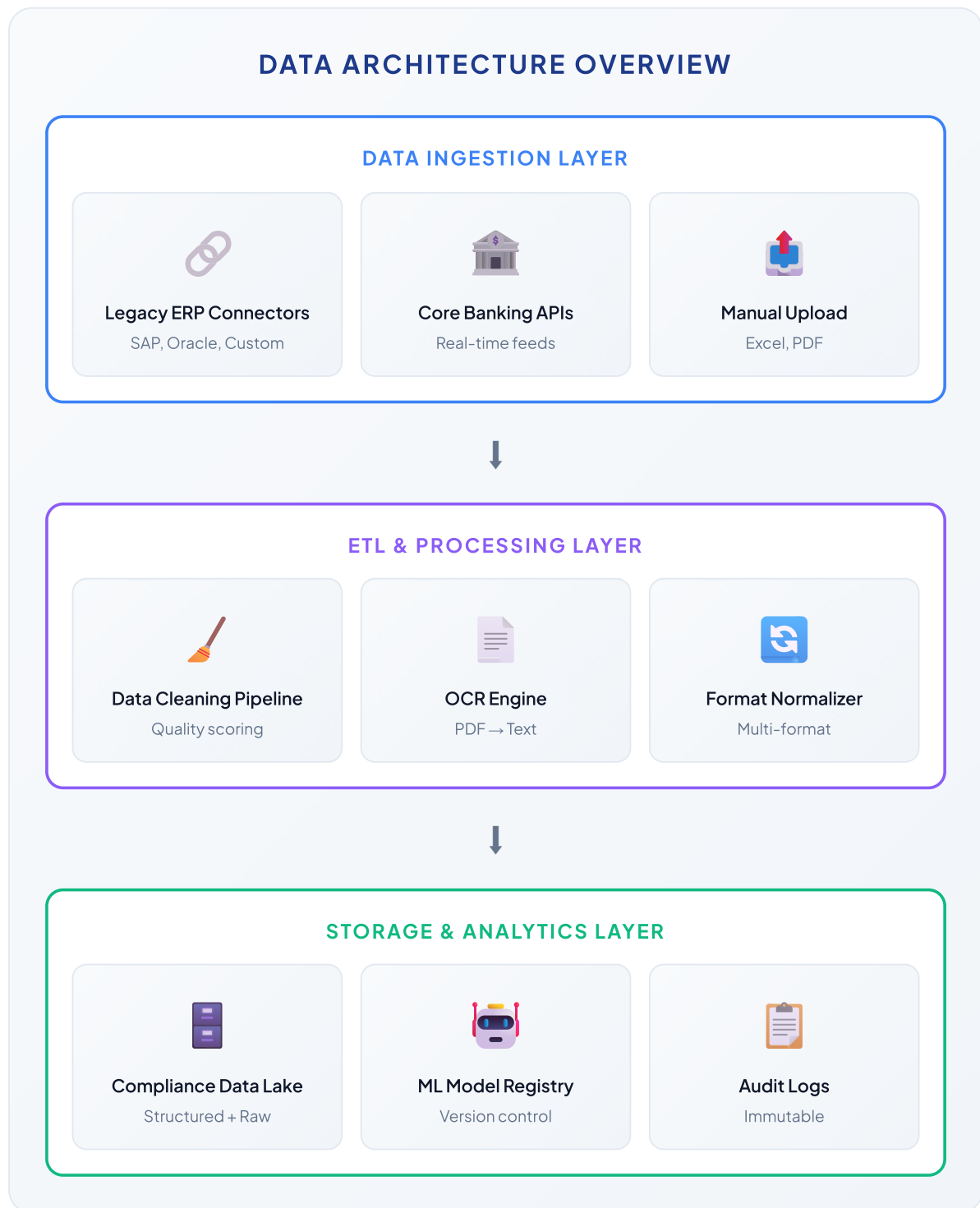
Special Features: - **New Joiner Onboarding (NJO) Track** - Structured compliance learning path - **SOP Update Modules** - Mandatory completion for new/updated SOPs - **Impact KPIs** - "Regulatory risk exposure reduced by X%" metrics

6. Automated Audit Report Generation

Purpose: Transform audit preparation from weeks to days

Capabilities: - Auto-compile compliance data across all monitored processes - Generated executive summary with key findings - Full audit trail with timestamps and responsible parties - Grace period status report (who's transitioned, who hasn't) - Export in regulator-required formats (OJK, BI, MOE templates) - Drill-down capabilities for auditor deep-dives

Data Architecture Overview



Legacy System Integration Plan

System Type	Integration Approach	Timeline
Modern APIs	Direct REST/GraphQL integration	Phase 1
Legacy ERP (SAP/Oracle)	Middleware connectors	Phase 2
Custom Internal Systems	Custom adapters	Phase 2-3
Manual Processes	Digitization + OCR	Phase 3

Data Quality Framework

- **Automated Quality Scoring** - Every data point rated for completeness, accuracy
- **Data Lineage Tracking** - Full audit trail of data transformations
- **Anomaly Detection** - Flag unusual data patterns for review
- **Staged Onboarding** - Entity-by-entity data onboarding with validation

Privacy & Security Framework

PDP Law 2023 Compliance

Requirement	COMPAS Implementation
Data Minimization	Collect only necessary compliance data
Purpose Limitation	Clear data usage policies per module
Consent Management	Built-in consent tracking for employee data
Data Subject Rights	Self-service portal for access/correction requests
Cross-Border Transfer	On-premise option; data residency controls
Breach Notification	Automated incident detection and reporting

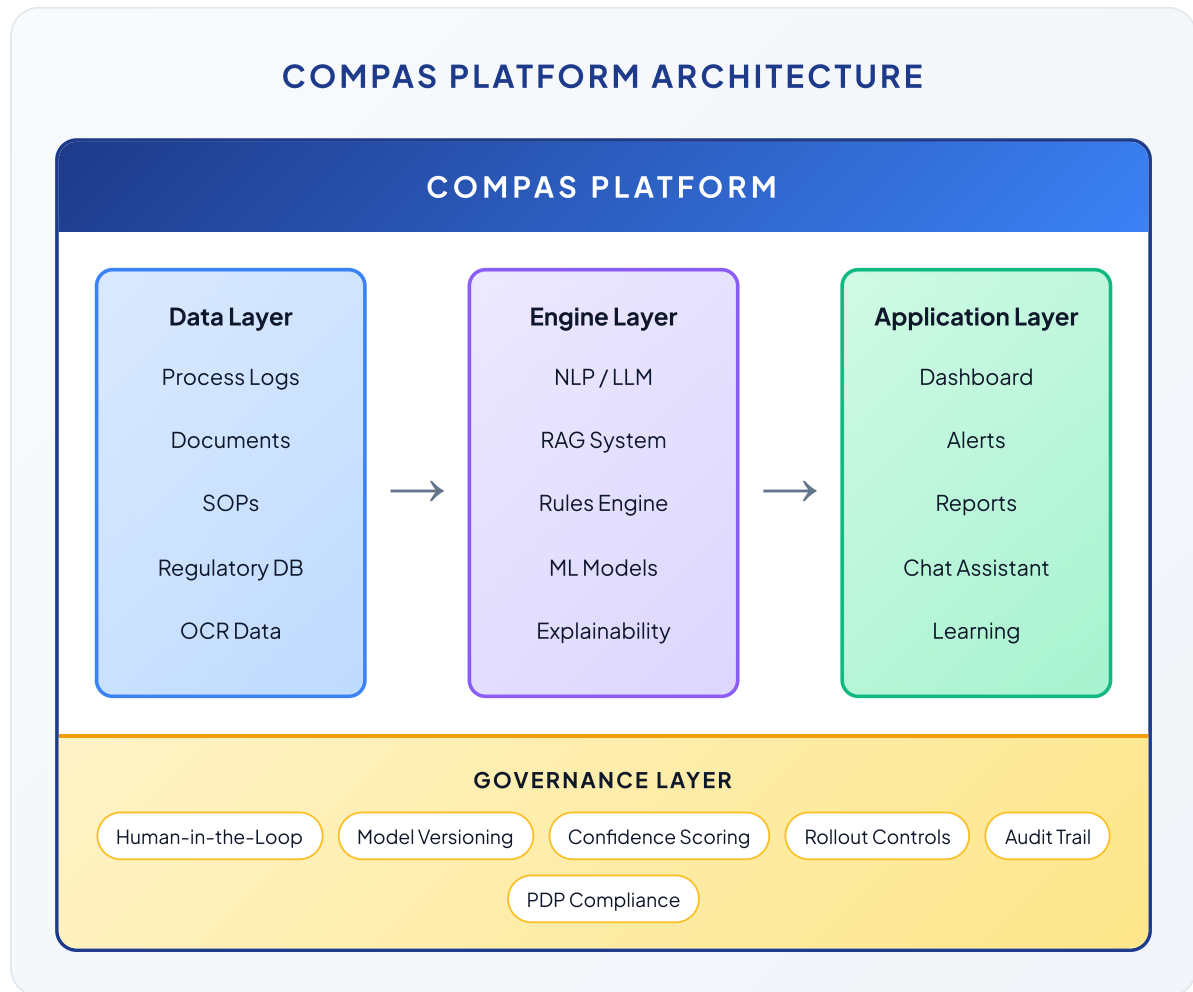
Security Standards

Standard	Implementation
ISO 27001	Information security management aligned
SOC 2 Type II	Ready for certification
Encryption	At-rest (AES-256) and in-transit (TLS 1.3)
Access Control	Role-based (RBAC) + Attribute-based (ABAC)
Audit Logging	Immutable logs, 7-year retention

Ethics & Governance

- **Bias Audits** - Regular fairness assessments on models
 - **Transparency Reports** - Published metrics on decision accuracy
 - **Human Override** - Always available for any automated decision
 - **Model Versioning** - Full lineage and rollback capability
-

Platform Architecture (High-Level)



Risk Mitigation Strategy

Risk	Mitigation
False Positives	Confidence scoring; user feedback loop; threshold tuning
False Negatives	Conservative thresholds; regular validation against known cases
Accuracy Issues	RAG architecture; source citation requirement; human verification
Bahasa NLP Limitations	Regional fine-tuning; hybrid rule+ML approach; continuous improvement
Outdated Model	Continuous regulatory feed; scheduled retraining; drift monitoring
Data Privacy	On-premise option; encryption; PDP Law compliance framework
Explainability	Every decision comes with reasoning and source
Model Drift	Automated monitoring; scheduled retraining; version control

Non-Functional Requirements

Requirement	Specification
Latency	Dashboard load < 3 seconds; Alerts within 5 minutes of event
Availability	99.9% uptime SLA
Security	ISO 27001 aligned; SOC 2 Type II ready
Privacy	PDP Law 2023 compliant; GDPR-ready architecture
Scalability	Support 40+ entities, 10,000+ concurrent users
Auditability	7-year data retention; immutable audit logs



| Go-To-Market Strategy

Phase 1: Foundation & Internal Pilot (Months 1–6)

Target: SQE internal compliance processes

Deliverables: - Core SaaS platform architecture - Synthetic data pipelines for testing - Basic Dashboard + Assistant MVP - Internal SOP digitization

Success Criteria: - 80% of SQE SOPs digitized and monitored - Platform stability validated - Initial model accuracy benchmarks

Risk Buffer: +1 month for data quality issues

Phase 2: Financial Services Pilot (Months 7–12)

Target: One SMMA subsidiary (recommended: Sinarmas Multifinance)

Deliverables: - Human-in-the-Loop modules for high-risk alerts - Legacy system integration (first connector) - Full compliance monitoring deployment - User training and adoption program

Success Criteria: - 50% reduction in audit preparation time - Zero missed compliance deadlines - 90% user adoption rate - Pilot ROI demonstrated (target: 3:1)

Risk Buffer: +2 months for integration challenges

Phase 3: Financial Services Rollout (Months 13–18)

Target: Expand to Bank Sinarmas, Asuransi Sinar Mas, other SMMA entities

Deliverables: - Cross-entity benchmarking operational - Full regulatory auto-adapt functionality - Comprehensive audit report generation - Multi-entity data consolidation

Success Criteria: - Measurable compliance score improvement across entities - 70% reduction in compliance FTE documentation time - Full PDP Law compliance certification

Risk Buffer: +2 months for multi-entity coordination

Phase 4: Mining Expansion & Optimization (Months 19–24+)

Target: GEMS/DSSA (Mining pillar)

Deliverables: - Mining-specific compliance modules (SMKP, MOE 2025, ESG) - Edge computing capabilities for remote sites - Advanced analytics and predictive capabilities

Strategic Value: - Mining revenue = USD 3B (2x Financial Services) - Position SQE as cross-pillar digital enabler

Risk Buffer: +3 months for mining-specific requirements

UAT & Stabilization Buffer: 3 months (Throughout)



Success Metrics

Business Impact Metrics (C-Level)

Metric	Baseline	Target	Measurement
Revenue Protection	2–3 incidents/year	Zero license suspensions	Incidents avoided
Cost Avoidance	Rp 5B potential exposure	Rp 10B+ fines prevented	Risk exposure reduction
Rating Confidence	Current Fitch rating	Maintain/improve	Annual rating reviews
Operational Efficiency	60–70% FTE on docs	30% reduction	Time tracking analysis

ROI Projections

Year	Investment	Savings	Net Benefit	Cumulative ROI
Year 1	Rp 15B	Rp 5B	(Rp 10B)	–67%
Year 2	Rp 8B	Rp 20B	Rp 12B	52%
Year 3	Rp 5B	Rp 35B	Rp 30B	207%

Target: 5:1 ROI by end of Year 3

Product Metrics

Metric	Baseline	Target	Measurement
Compliance Score	~75%	95%+ across all entities	Platform scoring
Audit Time Reduction	4–6 weeks	70% faster (1–2 weeks)	Before/after comparison
Incident Reduction	8–12 findings	50% fewer (4–6)	Year-over-year tracking
User Adoption	N/A	90% active users	Monthly active users
System Accuracy	N/A	95%+ precision, 90%+ recall	Model evaluation

Employee Engagement Metrics

Metric	Baseline	Target	Measurement
Training Completion	~70%	100% within grace period	Platform tracking
Learning Participation	N/A	80%+ weekly active	Engagement metrics
Assistant Usage	N/A	500+ queries/month	Usage analytics
NPS Score	N/A	40+	Quarterly surveys
SOP Comprehension	~60%	85%+	Assessment scores

Competitive Differentiation

Why COMPAS vs. Global Players?

Competitor	Their Strength	COMPAS Advantage
IBM OpenPages	Enterprise GRC, Watson	Local regulatory expertise (OJK, BI, MOE); Native Bahasa Indonesia; Lower TCO
SAP GRC	ERP integration	Not locked into SAP ecosystem; works with any ERP; faster implementation
ServiceNow GRC	IT workflow integration	Purpose-built for compliance, not adapted from ITSM; compliance-first design
Celonis	Process mining	Compliance-first, not process-first; includes learning & engagement
Regional Players (Singapore, India)	Regional presence	Deep Indonesian regulatory knowledge; local support; Bahasa-first

Unique COMPAS Differentiators

- 1. **Indonesian Regulatory Intelligence** - Built-in knowledge of OJK, BI, MOE, SMKP regulations with OCR for Indonesian PDFs

- 2. **Native Bahasa Indonesia** - Not just translation; trained on formal/informal Indonesian business language
- 3. **Contextual Compliance Engagement** - Culture-appropriate engagement for Indonesian corporate environment
- 4. **Human-in-the-Loop by Design** - Built for Indonesian corporate approval culture
- 5. **Cross-Pillar Architecture** - Designed for Financial Services AND Mining from day one
- 6. **Sinar Mas Integration Ready** - Pre-built for multi-entity group structure

Competitive Response Strategy

If Competitor Does...	COMPAS Response
Launches Bahasa support	Deepen local regulatory expertise; faster OJK/BI integration
Offers lower pricing	Emphasize TCO advantage; local support value
Acquires regional player	Accelerate mining expansion; lock in SMMA contracts



Investment & Resources

Team Requirements

Role	Count	Responsibility
Product Manager	1	Product strategy, roadmap, stakeholder management
Tech Lead	1	Architecture, technical decisions
Backend Engineers	3	API, data pipeline, integrations
Frontend Engineers	2	Dashboard, mobile, UX
ML Engineers	2	Model development, NLP, explainability
Data Engineers	2	ETL, data quality, integration
QA Engineer	1	Testing, quality assurance
UX Designer	1	User research, interface design
Compliance SME	1	Domain expertise, regulatory knowledge
Security Engineer	1	Security, privacy, PDP compliance

Total: 15 FTE

Technology Investment

Category	Year 1	Year 2	Year 3
Cloud Infrastructure	Rp 3B	Rp 4B	Rp 5B
LLM API Costs	Rp 2B	Rp 3B	Rp 4B
Security & Compliance Tools	Rp 1B	Rp 0.5B	Rp 0.5B
Development Tools	Rp 0.5B	Rp 0.3B	Rp 0.3B
Total Tech	Rp 6.5B	Rp 7.8B	Rp 9.8B

Pricing Strategy (Internal Cost Allocation)

Tier	Features	Suggested Allocation
Foundation	Dashboard, Basic Alerts, Audit Reports	Rp 500M/entity/year
Professional	+ Assistant, Engagement, Auto-Adapt	Rp 800M/entity/year
Enterprise	+ Custom Integration, Dedicated Support	Rp 1.2B/entity/year



Risk Assessment

Project Risks & Mitigations

Risk	Probability	Impact	Mitigation	Owner
Stakeholder Buy-in	Medium	High	Early C-level sponsorship; quick wins in pilot; regular steering committee	PM
Data Quality Issues	High	Medium	Staged data onboarding; quality scoring; dedicated data team	Data Lead
Change Resistance	Medium	Medium	Contextual engagement; extensive training; grace periods; champion network	PM + HR
Regulatory Changes	High	Low	Auto-adapt feature; modular architecture; regulatory partnerships	Compliance SME
Technical Complexity	Medium	Medium	Phased delivery; proven tech stack; external partnerships	Tech Lead
Resource Constraints	Medium	Medium	Prioritized MVP; contingency budget; external partnerships	PM
Bahasa NLP Accuracy	Medium	High	Hybrid rule+ML; continuous tuning; human fallback	ML Lead
Legacy Integration	High	Medium	Middleware approach; staged rollout; dedicated integration team	Tech Lead

Risk	Probability	Impact	Mitigation	Owner
PDP Compliance	Low	High	Privacy-by-design; legal review; certification path	Security + Legal

Contingency Plans

Scenario	Trigger	Response
Pilot fails to meet targets	<70% of success criteria	Extend pilot 3 months; add resources; re-scope if needed
Major regulatory change mid-project	New OJK/MOE regulation	Pause non-critical features; prioritize regulatory update
Key resource departure	Loss of Tech Lead or ML Lead	Pre-identified backups; knowledge documentation; contractor backup
Budget overrun >20%	Quarterly review shows overspend	Scope reduction; phase delay; executive escalation

The Ask

Immediate Next Steps

- 1. **Executive Sponsorship** - Secure C-level champion within SMMA
- 2. **Pilot Agreement** - Confirm first pilot entity (recommend: SQE internal → Sinarmas Multifinance)
- 3. **Team Formation** - Allocate core team resources (15 FTE)
- 4. **Budget Approval** - Initial 12-month runway (Rp 15B Year 1)
- 5. **Data Access** - Secure access to compliance data for pilot entity
- 6. **Legal Review** - PDP Law compliance assessment

Decision Required

Approve COMPAS for development with: - Phase 1 pilot starting Q1 2025 - Initial budget allocation for 12-month runway - Designated pilot entity within SMMA - Commitment to 18–24 month full rollout timeline

Governance Structure

Role	Responsibility	Cadence
Executive Sponsor	Strategic direction, budget approval	Monthly
Steering Committee	Cross-functional oversight, escalations	Bi-weekly
Product Team	Delivery, day-to-day decisions	Daily standups
User Advisory Group	Feedback, requirements validation	Monthly

Closing

Compliance is not just about avoiding fines—it's about building a culture of excellence, transparency, and trust. COMPAS transforms compliance from a burden into a competitive advantage.

For Sinar Mas Group, with its diverse portfolio across Financial Services and Mining, a unified compliance platform isn't a nice-to-have—it's a strategic imperative. The regulatory environment is only getting stricter, and the companies that thrive will be those that turn compliance into operational efficiency.

COMPAS is that bridge.

"Be the golden bridge that people want to pass and could pass to make their lives and activities easier."

— Tata

Document Control

Version	Date	Author	Changes
1.0	Dec 2024	Banat Zata	Initial version
2.0	Dec 2024	Banat Zata	Enhanced with detailed frameworks

Prepared for SQE Senior Product Manager - AI & Enterprise Solutions Case Study

*"Be the golden bridge that people want to pass and could pass to make their
lives and activities easier."*

— **Tata**