UKIYO NETWORK · GOVERNANCE LAYER

Agency for *smart contracts* roadmap

Observe → decide → simulate → act / escalate

DRAFT V1.0 · IN PROGRESS (NOT PRODUCTION YET)
FILE: C:\ROADMAP\02-AGENCY-SMART-CONTRACTS-ROADMAP.HTML
ROLE: ANSWER “WHAT MAY BE DONE”

MISSION NOW MVP LOOP PHASES TICKETS SECURITY NEXT

1. Mission & boundaries

NEVER INVENTS EVIDENCE · NEVER HOLDS CAPITAL

Policy-bounded agents between oracle feeds and on-chain markets. **Agents propose; contracts enforce; keys stay off-model.**

HOLDS	PRODUCES	NEVER DOES
Policy engine, allowlists, escalation, runtime	Approved / rejected / escalated decisions + audit	Produce scores, custody LP funds, free-write txs

Observe → **Decide** → **Simulate** → **Act** / **Escalate**

2. Current state

BUILDING · LOCAL POLICY STUBS

- White paper + site brief live
- Local MVP: bands, allowlist, simulate, escalate, audit
- Missing: on-chain PolicyEngine, fork sim, HSM signer

3. MVP scope (deep)

- Bands: high ≥8000 advance · mid 5500–7999 reprice/notify · low <5500 pause · stale → pause
- Degraded/Recovering haircut −500 bps before banding
- Allowlist only: mint, advance, reprice, pause, notify
- Escalate if amount > $25k auto-cap or pause-lift / stale policy
- 2-of-2 human approve/reject

> **Empty allowlist authorizes nobody.**

ACTION	TARGET	BOUNDS
mint	VerifiedOrderNFT	once per orderId
advance	IndustrySpool	amount ≤ maxAdvance
reprice	IndustrySpool	spread 50–2000 bps
pause / notify	IndustrySpool	notify codes enum

4. Runtime loop

1. Observe registry score/state + spool state
2. Decide band → typed allowlisted proposal
3. Simulate expected state diff
4. Act via separate signer — or escalate
5. Audit every step

ACTION	EXPECTED DIFF	REJECT IF
pause	paused; balances same	balance change
reprice	spread in bounds	out of range
notify	event only	storage write
advance	outstanding+=amt; supplier	wrong amt/recipient
mint	NFT exists	duplicate

5. Phases

PHASE 0 · LOCAL BRAIN

Band mapper + simulate + escalate in C:\mvp demo.

PHASE 1 · WEEKS 5–6 · SEPOLIA LOOP

- Deploy PolicyEngine
- Typed calldata builders
- Signer separated from decision
- 2-of-2 queue

Exit: E2E high-score advance; unknown selector rejected.

PHASE 2 · MONTHS 3–4 · PILOT OPS

- Escalation console
- Notify channels
- Runbooks + metrics

PHASE 3 · MONTHS 5–8 · HARDENING

- Fork simulation
- Argument-level bounds
- Novelty escalation
- Timeboost only for pause/reprice
- Timelocked policy

PHASE 4 · MONTHS 9–12+ · MAINNET AGENCY

- HSM/MPC · m-of-n
- Governed mainnet allowlists
- Optional confidential policy proofs

6. Tickets

ID	WORK	WHEN
AGY-1	PolicyEngine allowlist + caps	MVP
AGY-2	Band mapper	MVP
AGY-3	Simulate gate	MVP
AGY-4	Sepolia runtime	MVP
AGY-5	Escalation 2-of-2	MVP
AGY-6	Ops console	Phase 2
AGY-7	Notify adapters	Phase 2
AGY-8	Fork simulation	Phase 3
AGY-9	Arg-level decoders	Phase 3
AGY-10	Novelty escalation	Phase 3
AGY-11	Timelock governance	Phase 3–4
AGY-12	HSM/MPC signer	Phase 4

7. Security

- Model never receives keys / RPC / mutable policy
- Signer accepts only policy-approved calldata
- Stale oracle → pause band
- Show rationale + sim diff on escalations

8. Next (after Oracle/SPOOL deployables)

1. Freeze allowlist sighashes vs SPOOL
2. AGY-1 deploy script
3. Split decision worker from signer stub