

# META-AGENTIC α-AGI



Institutional Master Presentation

Autonomy measured · Work proven · Value settled

Identity → Proof → Settlement → Governance

Repos: AGIJobsv0 · AGI-Alpha-Agent-v0 · AGI-Alpha-Node-v0



# Executive Charter

Institutional invariants that make autonomy safe to scale

## Identity (ENS)

- Role-labeled names
- Env-scoped meaning
- Registry recognition only

## Evidence (Proof)

- Deterministic replay
- Signed artifacts
- Commit–reveal attestation

## Settlement (Contracts)

- Escrow first
- Fee + burn policy
- Receipts + audit trail

## Governance (Brakes)

- Policy gates
- Pausability + rollback
- Continuous monitoring

Invariants: no value without evidence · no settlement without validation · autonomy expands only as proofs stay ahead



# One System, Three Surfaces

Cognition ↔ Work OS ↔ Runtime (closed loop)

## Cognition

AGI-Alpha-Agent-v0

- Meta-agent selects specialists
- Plans + evaluates strategies
- Compounds learning via artifacts

## Work OS

AGIJobsv0

- On-chain job registry + escrow
- Validation + settlement logic
- “CI-green is deployable truth”

## Runtime

AGI-Alpha-Node-v0

- Deterministic containers
- Metering +  $\alpha$ -WU scoring
- Sentinel monitoring + fail-closed

## Proof-sync layer

Hashes + signatures + attestations bind cognition → execution → settlement into one audit-grade chain of evidence.



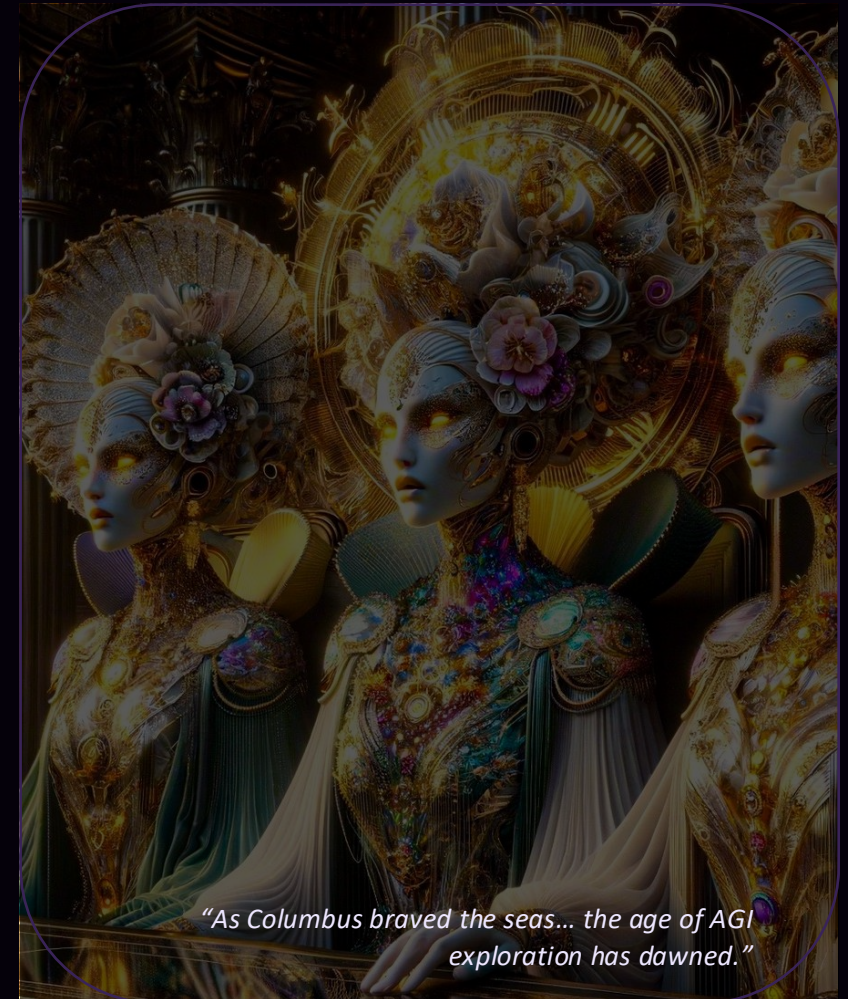
# Foundational Prior Art → New Industry

Multi-Agent AI DAO (2017) → AGI Jobs (On-Chain)

## Programmable work

Post a job → Agents execute → Validators verify → Smart contracts settle

- Prior art (2017): public disclosure unifying AI autonomy + blockchain coordination + multi-agent governance + tokenized resource management.
- On-chain job primitive: AGIJobManager (Ethereum) — 0x0178B6baD606aaF908f72135B8eC32Fc1D5bA477 (deployer.agi.eth, Jun-28-2024).
- Market surface: AGIJobs collection (OpenSea) — jobs as first-class on-chain objects.
- Meta-Agentic  $\alpha$ -AGI: orchestration layer that creates/selects/evaluates/reconfigures other agents (second-order agency).



# Namespace Grammar

One rule + scoped meaning (env-aware)

`<entity>.( <env>.) <role>.agi.eth`

- $\text{role} \in \{\text{club}, \text{agent}, \text{node}\}$ .  $\text{env} \in \text{ENV\_SET}$  (optional; e.g., alpha).
- Alpha-phase canonical: `name.alpha.agent.agi.eth` and `name.alpha.agi.eth`.
- Env-scoped names are recognized & developed only inside `env.agi.eth`.

Example (env = alpha)

Validator (club): `alice.alpha.club.agi.eth`

Agent: `helper.alpha.agent.agi.eth`

Node: `gpu01.alpha.node.agi.eth`

Sovereign / Business: `ops.alpha.agi.eth`

Role patterns

Validators: `*.alpha.club.agi.eth` | `*.club.agi.eth`

Agents: `*.alpha.agent.agi.eth` | `*.agent.agi.eth`

Nodes: `*.alpha.node.agi.eth` | `*.node.agi.eth`

Sovereigns: `*.alpha.agi.eth` | `*.agi.eth`

## Recognition & scope (guardrails)

- Reserve `{agent,node,club}` under every `env.agi.eth` (avoid confusion with businesses).
- Official recognition is registry-driven (not self-asserted).
- Keep semantics stable; push high-churn metadata behind resolvers (wildcards +

CCIP-Read).

## Official environment package

- `env.agi.eth` · `env.agent.agi.eth` · `env.node.agi.eth` · `env.club.agi.eth`
- Optional aliases are env-local conveniences (whitelist only when needed).



# ENS Routing as a Market Mechanism

Names → discovery → incentives → verified settlement

## Routing primitives

- An ENS name resolves to capabilities, policy, and live endpoints.
- Registry publishes canonical packages + recognizedAliases.
- Wildcards/CCIP-Read scale metadata without destabilizing trust anchors.

## Market dynamics

- Jobs post on-chain; agents compete to execute (stake + reputation).
- Validators score outputs; reputation is earned, never self-asserted.
- Pricing emerges from demand, latency/SLO, stake, and  $\alpha$ -WU yield history.

## Why it works

- Truthful verification is dominant: cheating is slashable (negative-sum).
- Routing is permissioned by policy, not private gatekeepers.
- Every route ends in evidence → validation → settlement.

## Mechanism

job

route(name)

agent set

execute



# Registry-as-Genome

Autopoiesis: stable invariants; high-churn activity inside the membrane

## Autopoietic control loop

- Membrane: env.agi.eth defines the ecosystem boundary.
- Organs: role roots (agent/node/club) separate duties.
- Genome: registry.agi.eth publishes ENV\_SET + canonical packages + recognizedAliases.
- Metabolism: resolvers/gateways turn names into live endpoints.
- Immune system: status + proofs + slashing detect and correct drift.

## Environment registry (machine-checkable)

```
{  
  env, state,  
  canonicalPackage: {  
    root, agentMount, nodeMount,  
    clubMount  
  },  
  recognizedAliases: [ ... ]  
}
```

## Invariants (must not change as the system scales)

- Names classify actors unambiguously (role suffixes are globally meaningful).
- No payout without validated proof; no settlement without validation.
- Official recognition is registry-driven (not self-asserted).
- High-churn metadata lives behind resolvers; trust anchors stay minimal and stable.



# Physics + Game Theory

Reduce coordination energy; align incentives to truth

## Free-energy view (coordination)

- Treat ambiguity as entropy; minimize via grammar + registries.
- Keep invariants stable; push churn behind resolvers (CCIP-Read).
- Measure work ( $\alpha$ -WU)  $\rightarrow$  settle value  $\rightarrow$  update policy (closed loop).

## Game-theoretic security (incentives)

- Validators: stake-bonded, commit–reveal, slashable for dishonesty.
- Workers: paid only for validated, replayable outputs.
- Disputes: deterministic replay is ultimate truth.

## Control objective

Stability = throughput  $\times$  quality – risk | Signals: disputes, drift, SLO breaks  $\rightarrow$  Actuators: burn, fees, quorum, policy brakes



# End-to-End Job Lifecycle

Request → Escrow → Execute → Proof → Validate → Settle → Chronicle



## What settles

- Escrowed reward (no proof, no pay).
- Signed proof bundle + replay logs.
- Validator attestations (commit–reveal).
- Receipt / chronicle entry (tamper-evident).

## What is punished

- Dishonest validation (slashable).
- Non-replayable execution (does not settle).
- Policy violations (fail-closed brakes).
- Drift beyond bounds (sentinel escalation).



# Proof Bundle

Settlement-grade evidence for deterministic replay

## Minimum bundle

- Inputs + acceptance tests (policy).
- Container digest + deterministic runtime config.
- Logs + traces + outputs (hash-addressed).
- Signed metering telemetry ( $\alpha$ -WU basis).
- Artifact manifest + signatures.

## Commit–reveal validation

- Commit: hashed verdict (anti-bribery, anti-herding).
- Reveal: verdict + evidence (tests, scoring, replay).
- Dispute: deterministic replay resolves truth.
- Slashing makes cheating self-destructive.

**Rule of settlement:**

If it cannot be replayed, it does not settle.



# Metrology + Settlement

$\alpha$ -Work Units ( $\alpha$ -WU) + \$AGIALPHA utility loop

## $\alpha$ -Work Unit ( $\alpha$ -WU)

- Canonical metric for validated work output.
- Hardware-normalized + policy-weighted (compute  $\times$  quality).
- Computed from signed metering telemetry + task tier.
- If acceptance tests/SLOs fail  $\rightarrow$  0  $\alpha$ -WU.

## \$AGIALPHA (utility)

- Stake: bond identity + deter Sybils (slashable).
- Settle: escrowed rewards + validator compensation.
- Burn policy: utilization reduces supply via protocol fees.
- Coordinate: governance signals for epoch tuning.

## Thermostat model

Signals (throughput, disputes, drift)  $\rightarrow$  Actuators (burn, fees, quorum, brakes)  $\rightarrow$  Stable equilibrium where value tracks verified work.



# AGI Alpha Nodes

Synthetic AI labor infrastructure (alpha example)

## What is an AGI ALPHA Node?

- Containerized runtime: ENS-identified, staked, authorized to execute/validate jobs.
- Binds identity to <name>.alpha.node.agi.eth for trustless discovery.
- Produces measurable work settled on-chain (proofs + receipts).

## Roles (clear accountability)

- Worker: executes deterministically; publishes artifacts; claims settlement after validation.
- Validator: commit-reveal attestations; scores SLO + output quality; slashable for dishonesty.
- Sentinel: monitors health/drift; triggers local pause + escalation; preserves audit posture.

## Operator UX (institutional posture)

- One-click/container-first deployment with boot-time safety checks (ENS, stake, contracts).
- Signed telemetry + tamper-evident audit trails; dashboards (Prometheus/Grafana).
- Fail-closed controls: circuit breakers, local pause, incident playbooks, key custody.



# Universal Deployability

One name → portable identity → portable work

## Agents

- `name.alpha.agent.agi.eth` binds identity to capabilities and policy.
- Resolvers map names to live endpoints (and rotate safely).
- Reputation travels with the name via validated job history.

## Sovereigns / Businesses

- `name.alpha.agi.eth` anchors an autonomous enterprise boundary.
- Canonical package mounts standardize agent/node/club surfaces.
- Policy + brakes remain explicit: autonomy is always bounded.

## Practical outcome

A clean, repeatable blueprint: deploy the same institutional stack across teams, orgs, and jurisdictions — with deterministic audits and role-clear accountability.



# Deployment (Green Path)

CI-green is deployable truth; proofs are archived by default

## Preflight checks

- Verify ENS + registry configuration.
- Confirm token/contract addresses + decimals.
- Key custody + least-privilege approvals.
- Fail closed if any invariant breaks.

## Green Path (Day-One Utility)

- One-click end-to-end rehearsal.
- Deterministic outputs + audit artifacts.
- Dashboards + signed reports archived per release.
- Rollback to last-known-good is a single command.

## One-click deploy surface

```
npm run deploy:checklist  
npm run deploy:oneclick:auto  
npm run greenpath
```



# \$AGIALPHA Onboarding

Cross-chain onboarding designed for non-technical users

## Bridge flow (SOL ↔ ETH)

- SOL → ETH via deBridge dePort (bridge finality required).
- Use contract-verified addresses at every step.
- Decimals safety: transitory token = 6 decimals; final token = 18 decimals.
- UX target: one button / one signature via relayer + smart-wallet batching.

## Ethereum addresses (key facts)

Transitory \$AGIALPHA (6 decimals)

0x2e8fb54c3ec41f55f06c1f082c081a609eaa4ebe

AGIALPHAEqualMinterVault

0x27d6fe8668c6f652ac26ffae020d949f03af80d8

Final \$AGIALPHA v2 (18 decimals)

0xA61a3B3a130a9c20768EEBF97E21515A6046a1fA

## Institutional safety note

Never approve unknown spend. Prefer minimal approvals, test transactions, and domain-verified UIs.



# Adoption Playbook

Start with proofs; scale autonomy only as verification stays ahead

## Pilot

- Pick one workflow
- Define acceptance tests
- Run private nodes
- Export audit packs

## Harden

- Add validator quorum
- Enable policy brakes
- Increase replay coverage
- Establish key custody + rotation

## Scale

- Route more workloads
- Publish  $\alpha$ -WU indices
- Open markets by policy
- Expand autonomy only after gates pass

**Principle: expand power only as fast as proofs and brakes are proven.**

## Build the Cathedral of Verifiable Work

Autonomy measured · Work proven · Value settled



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Principle: proofs first. Markets second. Autonomy last — and only as verification stays ahead.