One Network. One Identity. One AI That Knows You—from Birth.

A bio-specific L1 where humans, encrypted health data, AI agents, labs, and IP live as programmable on-chain actors.

DEPH.

THE SOVEREIGN BIO-DIGITAL NETWORK

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Specification:	v3.0
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EXECUTIVE SUMMARY: WHAT DEPH IS

1. Sovereign Bio L1

Base layer for HealthID, consent, and settlement of biological AI.

2. Agent-Native Data Pool

Encrypted lifetime vaults that agents query, not scrape, for longitudinal context.

3. Real-World Product Rails

Labs, kits, and health apps plugging into shared logistics and payments.

4. Real Yield from Biology

Validator and staker rewards from fees on tests, subscriptions, and queries.

5. Regulated IP Engine

Separate, compliant IP-NFT rail for licensing biological models and cohorts.

DEPH Ecosystem: Live Rails Today

UMMU – Women's Health & Birth-to-Baseline

Cycles, fertility, pediatric labs, lifetime tracking into HealthID vault.

MUHDO – Epigenetics

80k+ biological age tests flowing through DEPH.

DEPHX – Performance

Training load, recovery, and labs tied to the same vault.

Encrypted to HealthID Vaults

Labs, Epigenetics, Devices, Wearables

DEPH Sovereign Bio L1

HealthID, consent, vault registry, fees, staking.

AI Agents

Fertility, metabolic, longevity, performance.

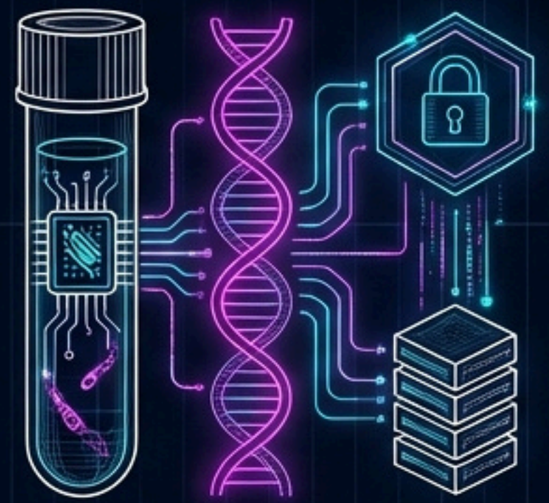
IP-NFT Engine

Licensed cohorts & models on separate regulated rail.

80k+ tests, 300+ clinics, protocol fees from tests, subscriptions, and logistics → validators, vertical pools, treasury, burn.

Agent-Native Network Design, Not DeFi-Retrofit.

Signal Over Noise



Prioritizes longitudinal, lab-anchored data over noisy self-reports to maximize agent quality.

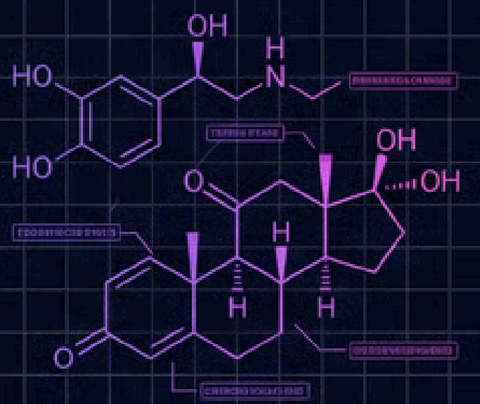
No Passive Yield

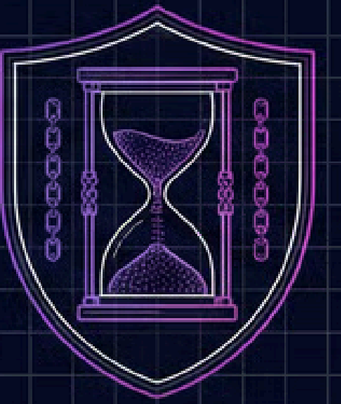
Rewards accrue to validation, compute, staking, and logistics work—no protocol-guaranteed farms.

Infrastructure Only

DEPH provides the rails; apps and agents own UX, brand, and pricing.

Imagine One AI That Knows Your Biology For Life





Childhood/Birth:
First DNA test

Teenager/Youth:
Injuries & Sports metrics

Adult: Fertility,
Metabolic, Mental Health

Later Life/Elder:
Epigenetic age & Longevity

Shifts from **siloed snapshots** to **cooperating agents** that all write to a **single lifetime HealthID vault.**
Accumulates DNA, hormones, labs, and device streams into one coherent biological narrative.

Enables one lifelong biological AI per person, reasoning over decades of context—**not fragments**.

All fused into **one encrypted** HealthID vault, so one AI can grow up with you—**trained only on your data**, governed by **your rules**, not by a platform.

Today: Frozen Data, Weak AI, Zero User Upside

SILOS

HOSPITAL

Frozen EMR Snapshots.

NO CONNECTION

SILOS

APP

Walled Garden Data

NO CONNECTION

SILOS

LAB

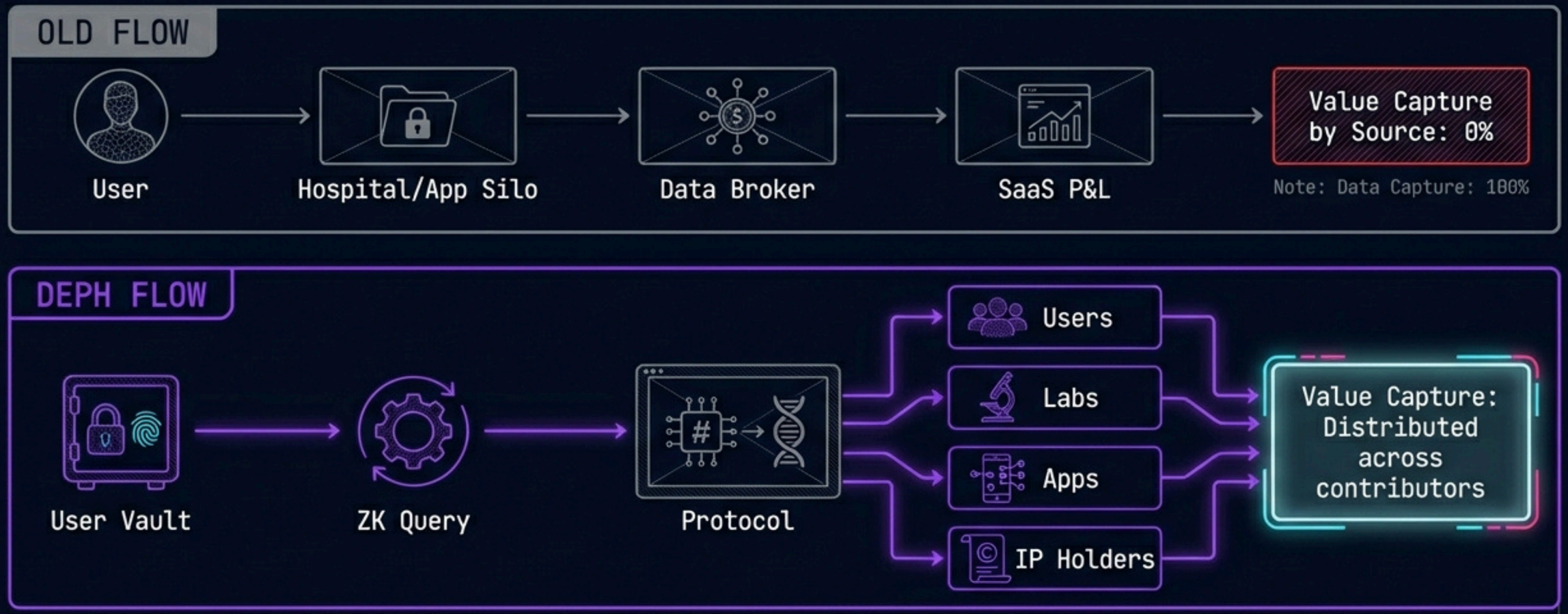
Wholesale Vendors

Genomics, labs, and wearables live as frozen snapshots inside hospital and SaaS silos.

Models see disconnected slices of a life, leading to weak predictions and hallucinated advice.

Over 200B a year in biological data value is captured as SaaS and data-broker revenue—users and clinicians see none of it.

200B+ Biology Mispriced as SaaS Exhaust.

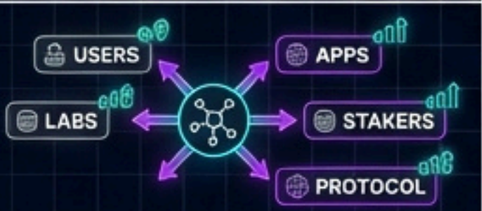


DEPH Flow distributes value via on-chain rules.

The Current Stack Is Misaligned By Design

No neutral substrate → hoarding, regulatory clampdowns, slow innovation

From Platform Extraction to User-Sovereign Rails.

	STATUS QUO	DEPH
Data Custody	Platform-owned, off-balance sheet data hoards.	User-owned vaults anchored by a cryptographic HealthID.
AI Potential	Isolated slices, low signal, hallucinations.	Full-timeline context, continuously learning agents.
Privacy	Opaque resale and broker markets.	Zero-knowledge proofs, PHI off-chain, compute-to-data.
Economics	No rights, no revenue to contributors.	Programmed splits for users, labs, apps, stakers, and protocol. 

JetBrains Mono

Why a Sovereign Bio L1 Has To Exist Now.

AI Agents

Health is moving to agent interfaces that need longitudinal, lab-grade data.

ZK Cryptography

Production-ready for heavy biological workloads and medical privacy.

Regulation

Clearer separation of utility tokens vs IP-bearing securities and data rights.

Demand

Clinics, pharma, and users now expect ownership, consent, and upside on data use.

What the World Is Missing.

- A shared rail to coordinate labs, clinics, devices, and AI around one person-centric dataset

- A standard for running computation on private health data with mathematical confidentiality (ZK compute-to-data)

- An economic model where users, labs, and builders share network upside instead of competing for it

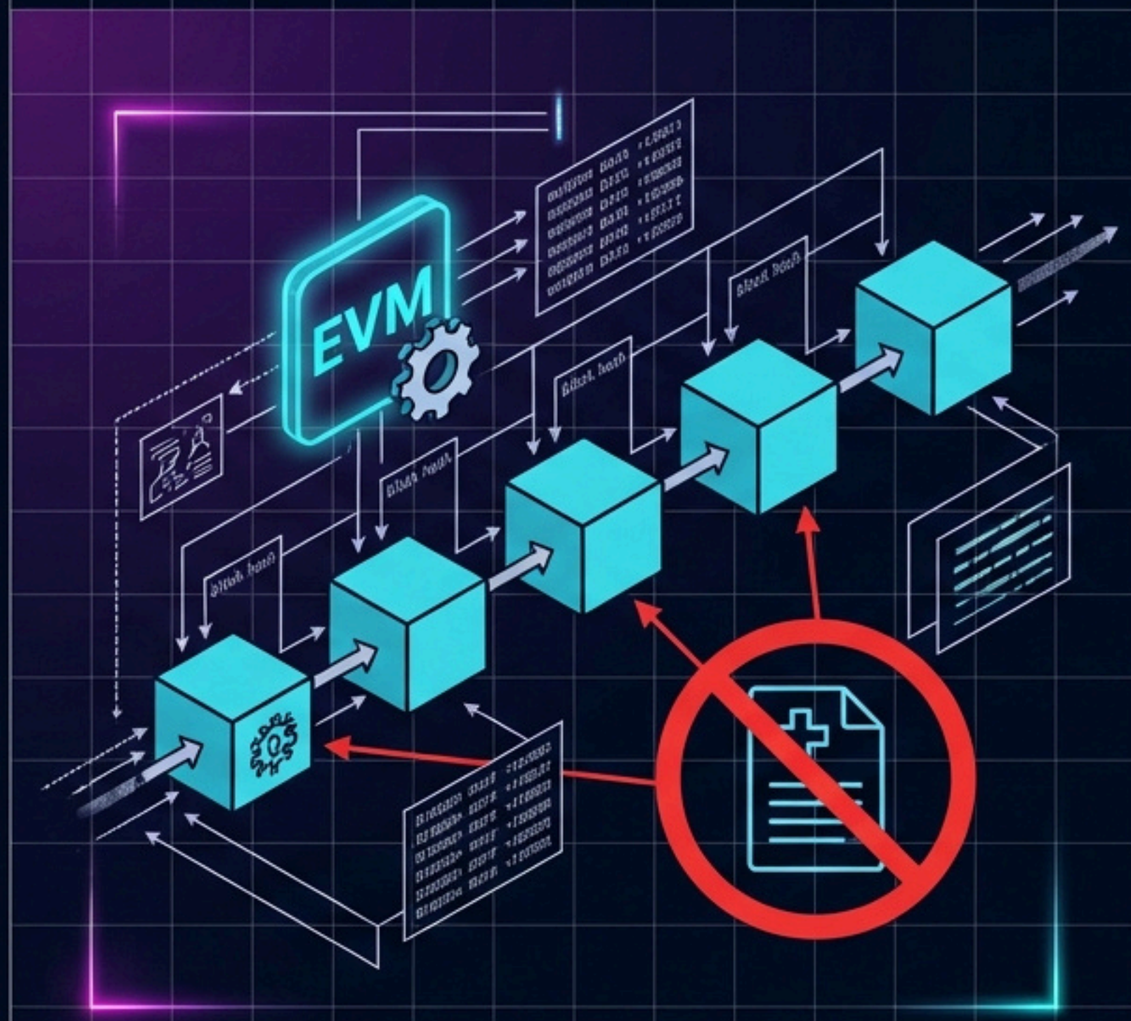
- The infrastructure layer that unlocks fertility, longevity, mental health, and metabolic verticals on one rail

The Bridge: Web2 Utility to Web3 Sovereignty.

Bridging easy UX with sovereign backend infrastructure.

The Bio-Digital Stack: From L1 to Agents.

The Bio-Specific L1: Architecture & Specs.



EXECUTION: EVM-compatible L1 dedicated to biological workloads; contracts manage HealthID, consent, fees, staking, IP-NFTs.

CONSENSUS: Proof-of-Stake with BFT finality; validators produce blocks and verify ZK proofs; blockspace priced for lab queries, not memecoins.

STATE MODEL: On-chain holds IDs, consents, fee flows, staking, IP positions; off-chain vaults hold PHI and heavy clinical files referenced by hashes and pointers.

CRITICAL RULE: Rule: No PHI ever lands on-chain—enforced at protocol level, not left to apps.

Four Crypto Primitives Wire the Network.

1. Identity & Vault

Per-person HealthID plus encrypted vault as the base state object for a lifetime of biology.

2. Consent as Code

Smart contracts expressing who can query what, for which purpose, for how long, and on what revenue splits.

3. ZK Marketplace

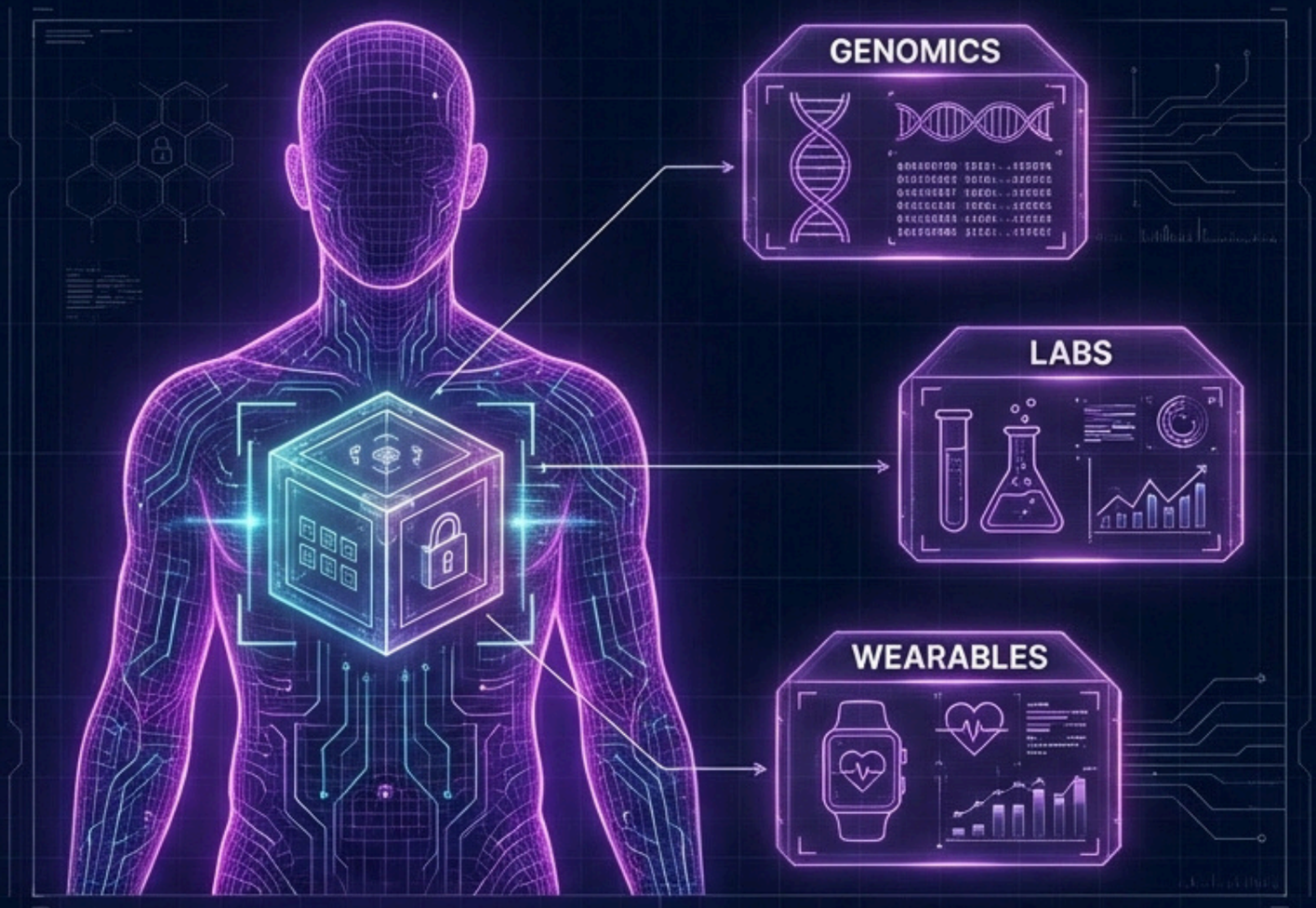
Compute-to-data market where queries and training jobs run inside vaults; only proofs and results touch L1.

4. Economic Layer

Protocol templates that route every biological event's revenue to users, labs, apps, stakers, and treasury.

HealthID & Vault: The Atomic Units of Sovereign Biology.

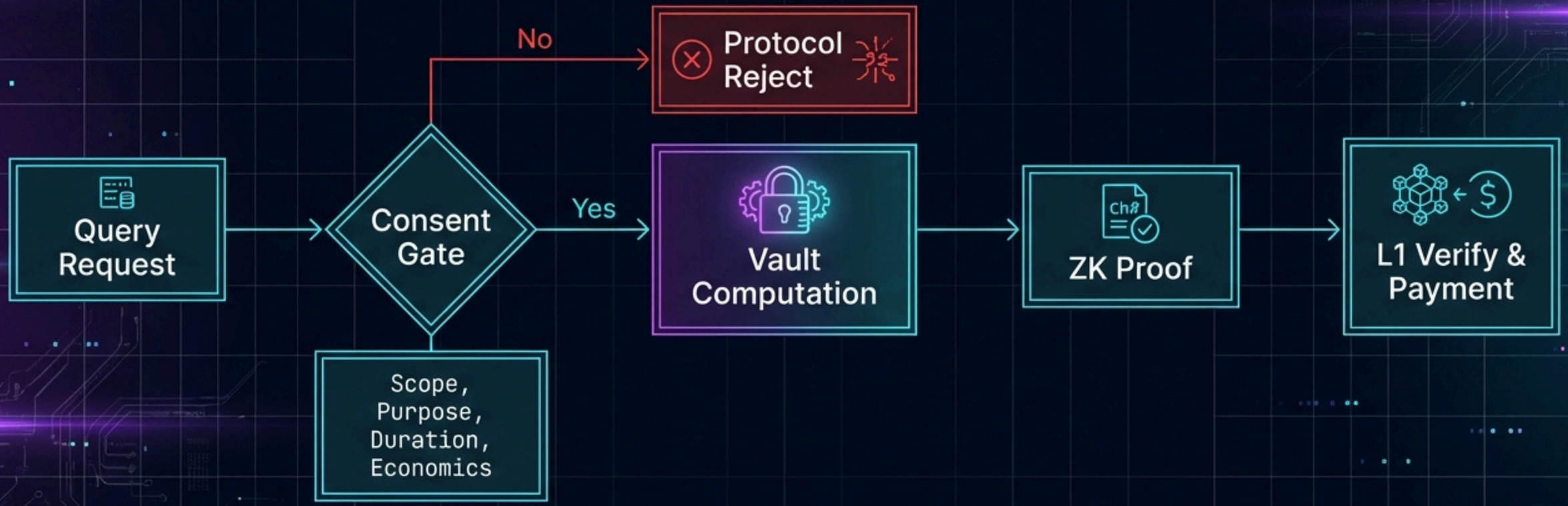
HealthID:
A cryptographic identity representing one human lifetime, independent of any clinic or app.



Vault:
FHIR-compliant encrypted storage bound to the **HealthID**, holding genomics, labs, wearables, and **clinical notes.**

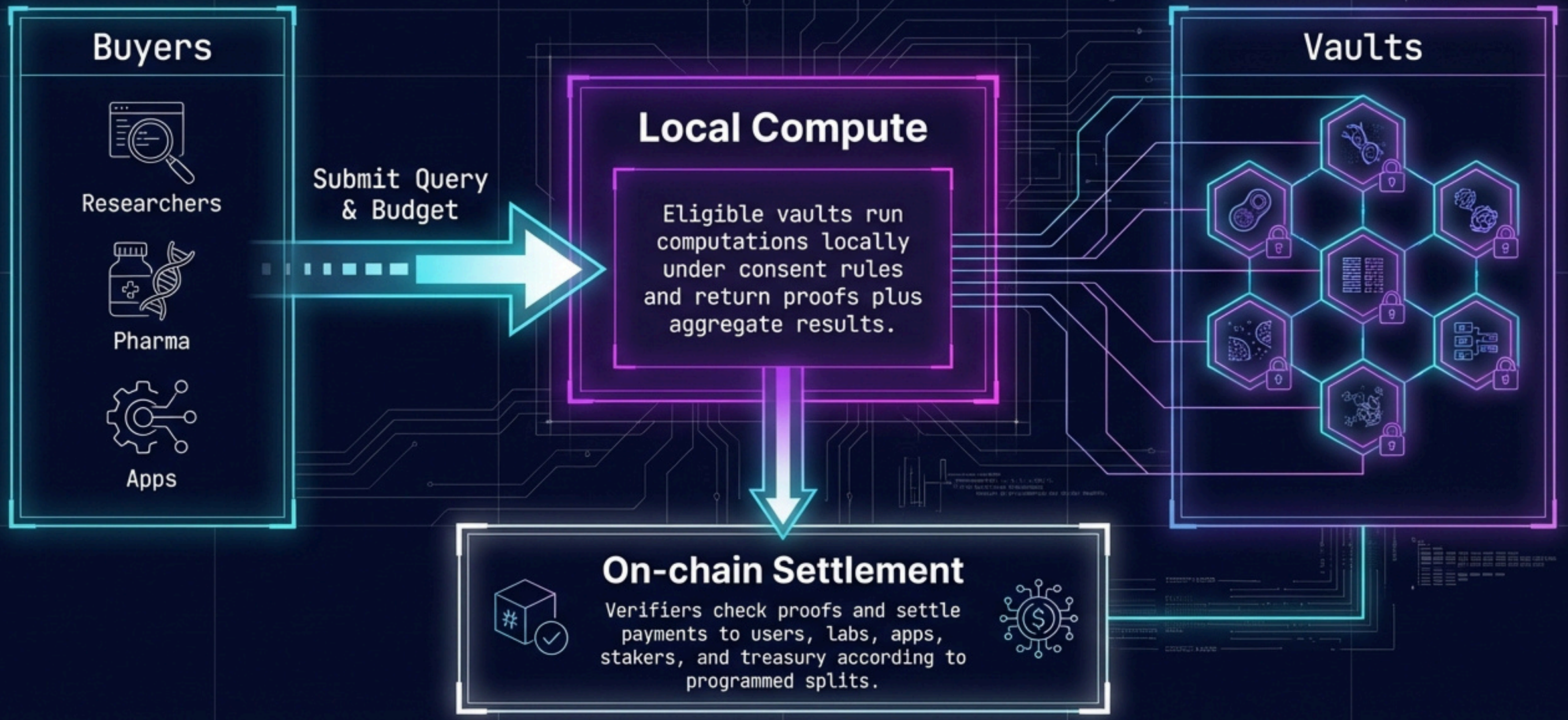
The chain maintains bindings between HealthID and its consents, balances, and participation—never raw clinical data.

Consent as Code & ZK Queries: Enforced in Hardware and Math

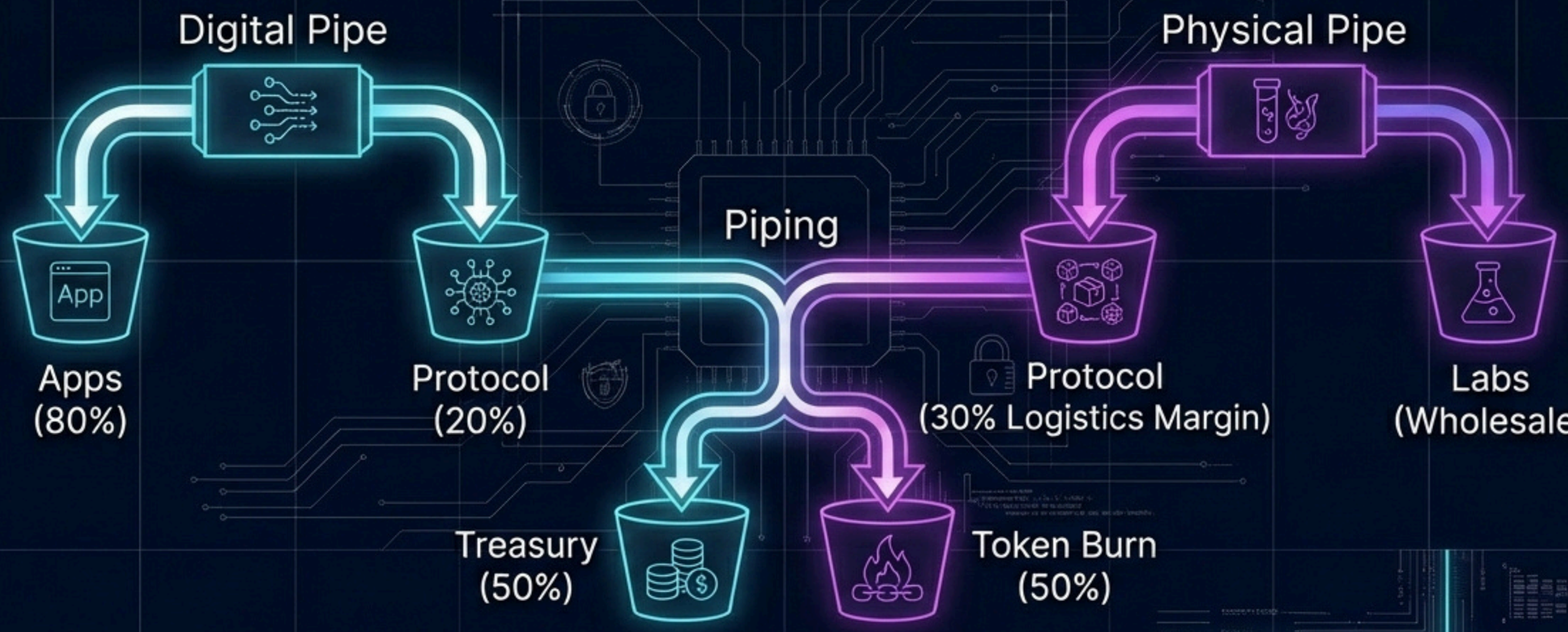


The network only sees hashes, pointers, and proofs—not PHI.

ZK Marketplace: Send Compute to Data

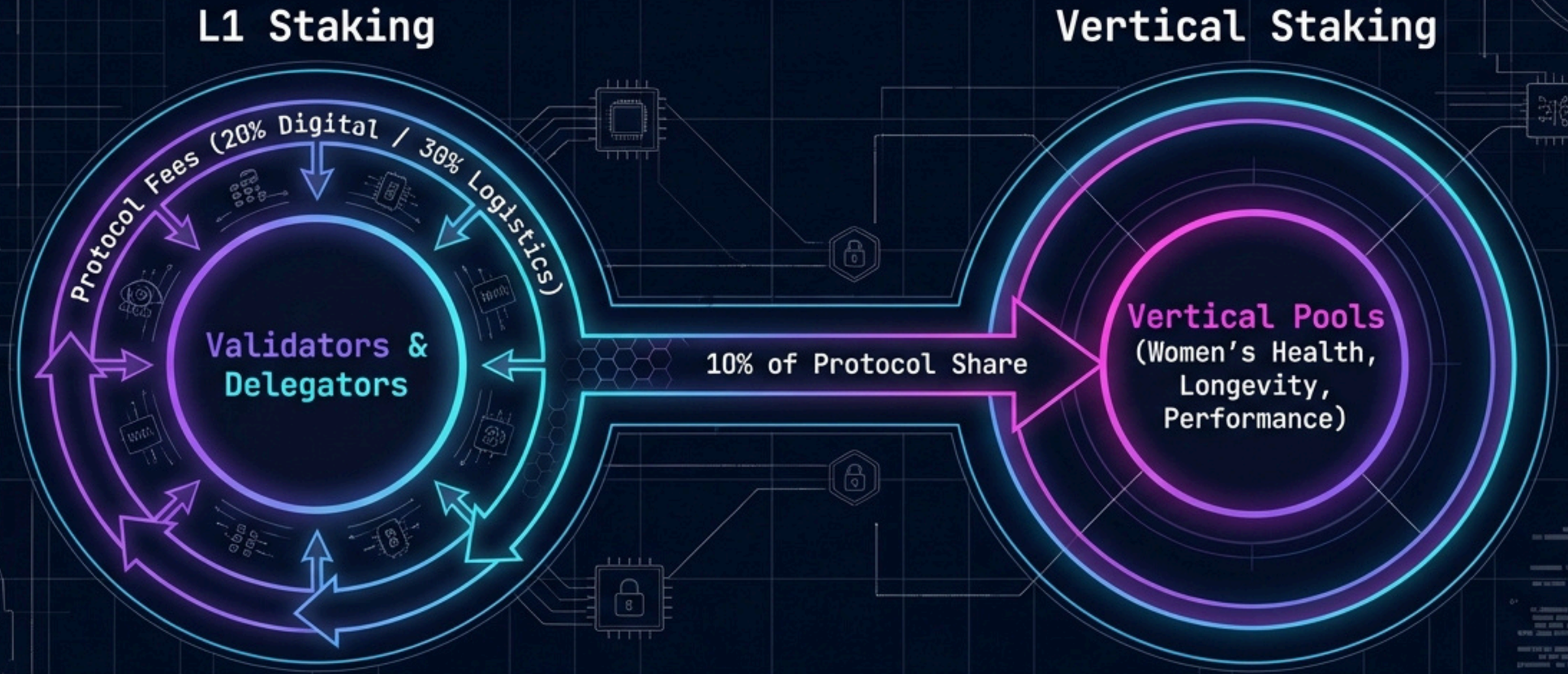


Economic Layer: How Biology Becomes On-Chain Cashflow



Across both pipes, protocol revenue itself splits 50/50 between treasury (growth) and token burn (scarcity).

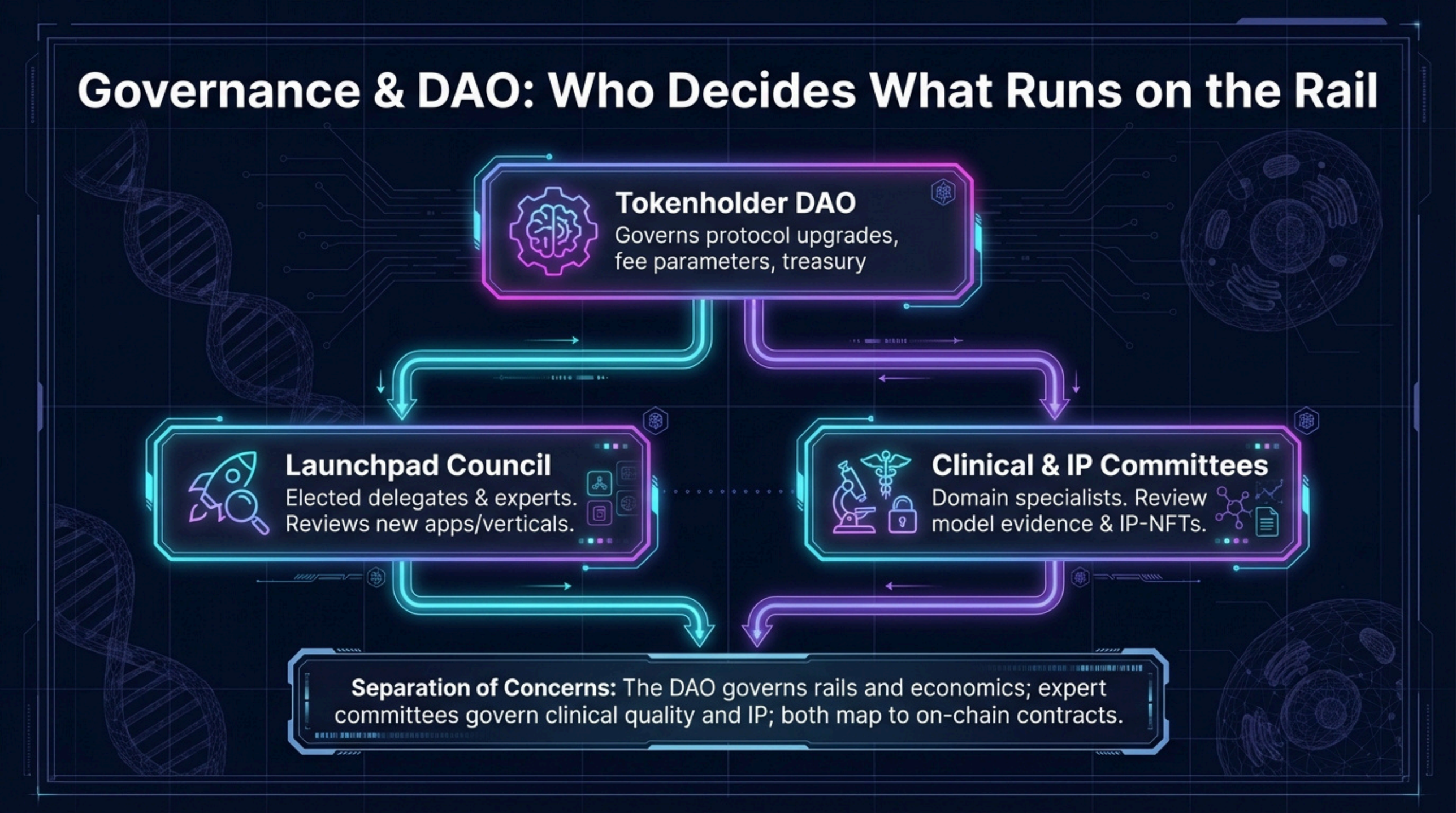
Staking: Real Yield From Real-World Biology



Rewards from fees, not inflationary emissions.

Stakers earn DEPH in proportion to stake and time; if a vertical underperforms, reward flow contracts.

Governance & DAO: Who Decides What Runs on the Rail



Launchpad: Curating Apps, Verticals, and IP Rails

Vertical Rails: Three Live, Many in the Pipe.

Women's Health
(UMMU + Sarah)

Tracks cycles, mood, hormones. Sarah flags issues; outcomes train fertility IP.

Epigenetics
(MUHDO + Bio-Age Bot)

Runs epigenetic tests; computes biological age. Bot learns interventions.

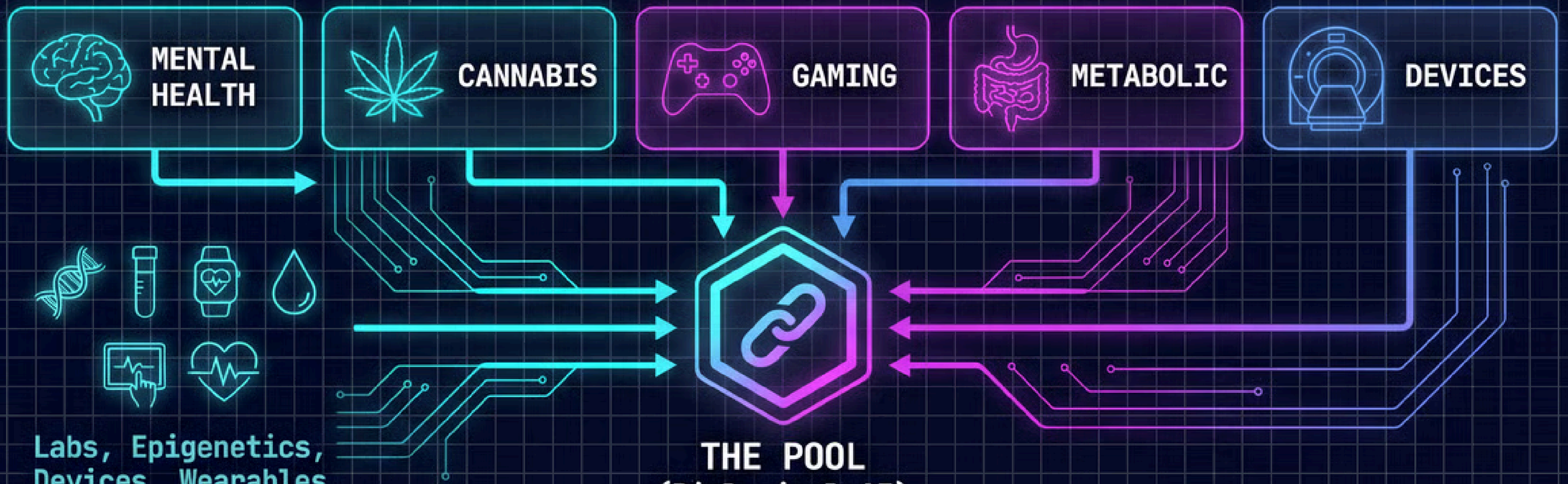
Performance
(DEPHX + Coach X)

Combines genotype, training logs. Coach X builds genotype-specific IP.

Future Verticals: Mental Health, Metabolic Health, Pediatrics & Pregnancy.

MULTI POOL: VERTICAL EXPANSION & POOLED INTELLIGENCE

Each new vertical enriches the central repository, creating a denser, more valuable dataset for authorized researchers.



80k+ tests, 300+ clinics, protocol fees from tests, subscriptions, and logistics → validators, vertical pools, treasury, burn.

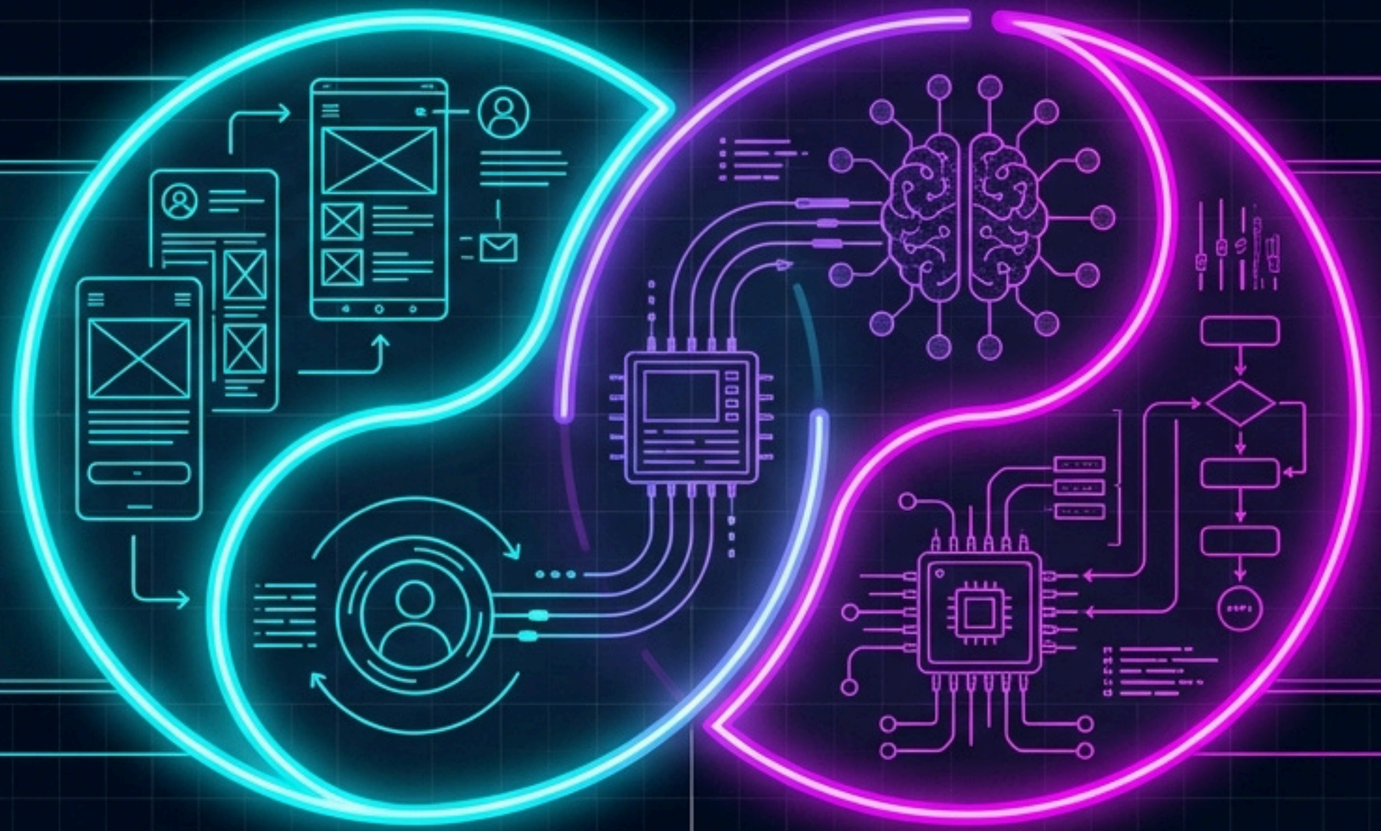
Danp Told Nary (5089425)

Apps Own Demand; Agents Operationalize Intelligence

APPS

- UMMU
- MUHDO
- DEPHX

Own brand, UX, pricing, and customer relationships.



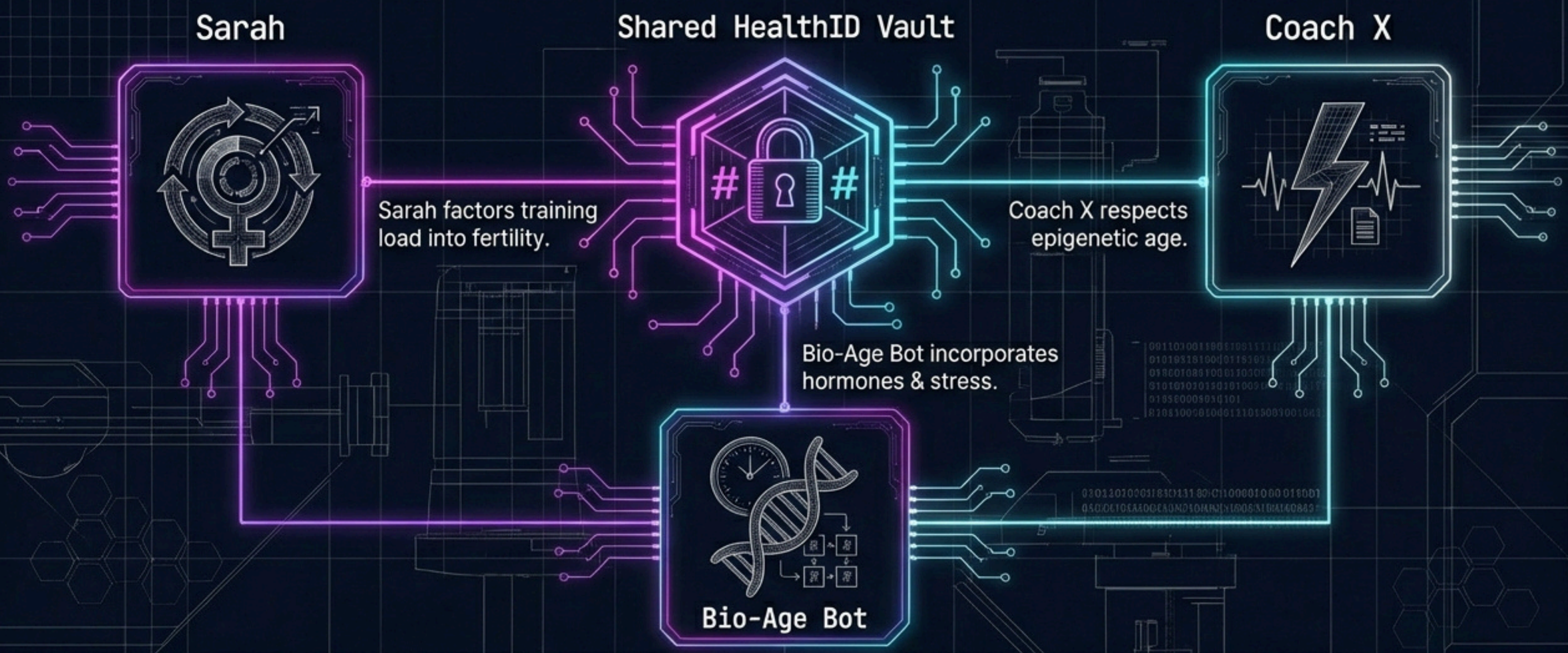
AGENTS

- Sarah
- Bio-Age Bot
- Coach X

Interpret data, generate protocols, and drive outcomes.

Builder Value: Apps plug into identity, labs, consent, and settlement on day one—no need to build infra. They focus on UX.

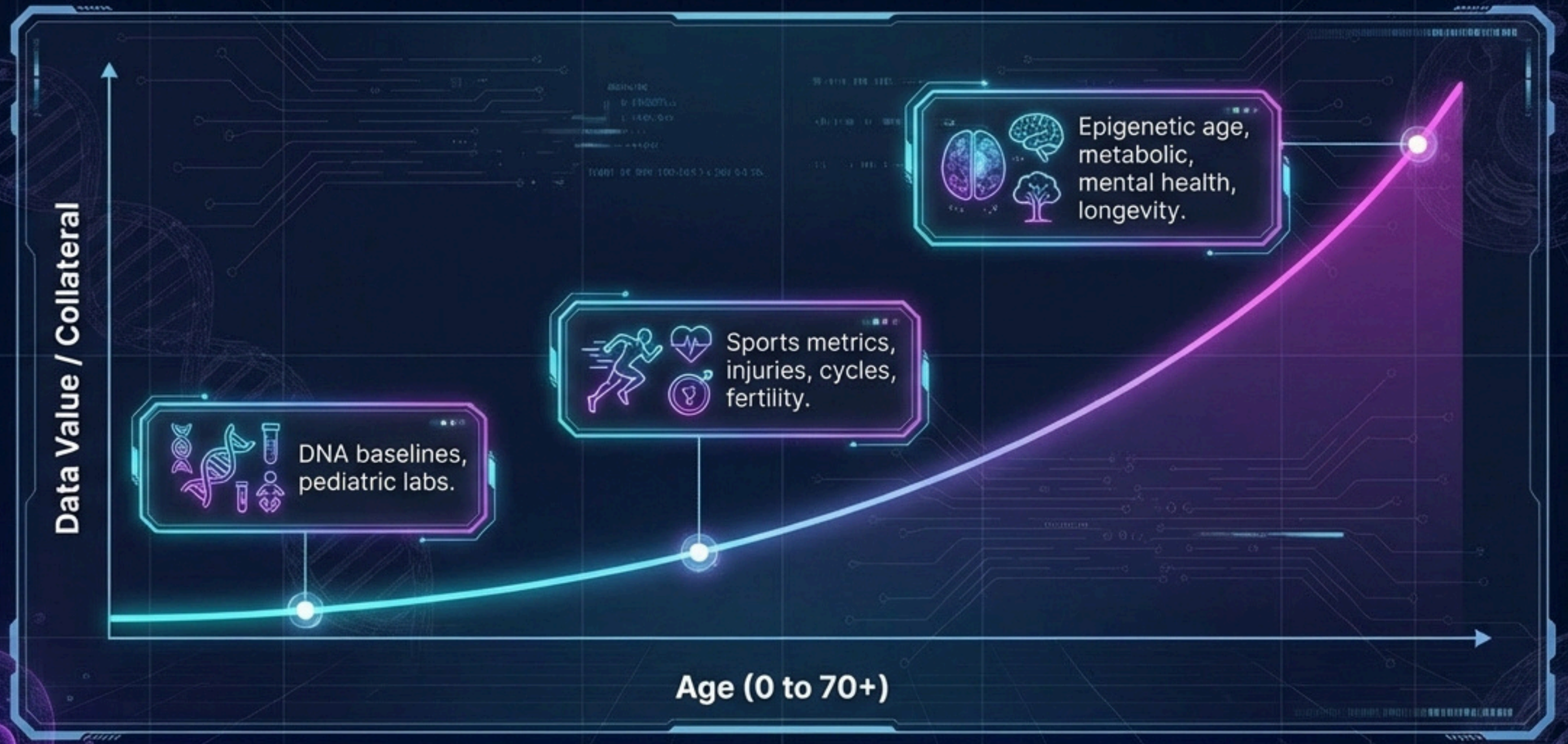
Cross-Agent Collaboration: One Vault, Many Agents.



Cross-domain context is a native property of the rails, not a post-hoc integration.

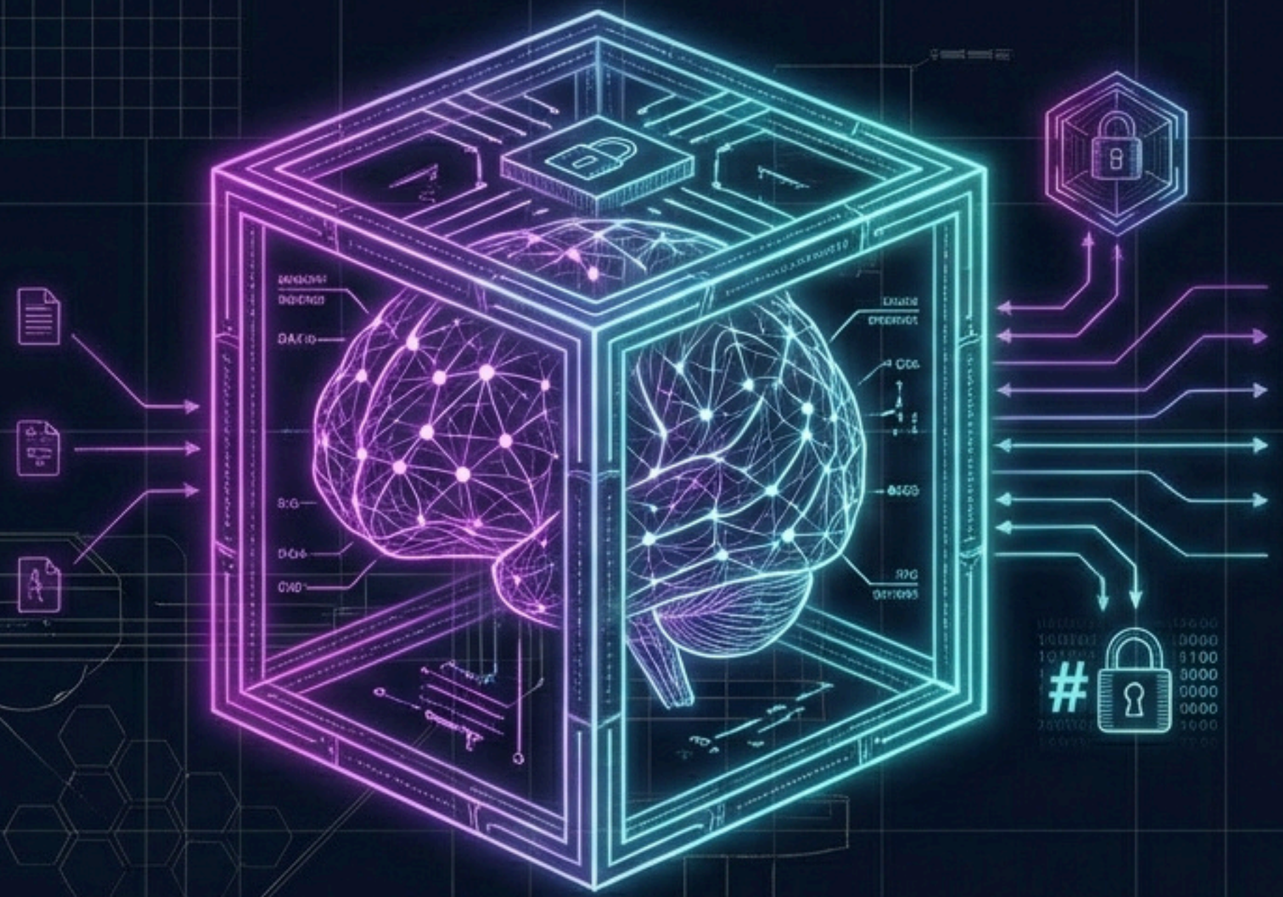
One Loop: Test → Insight → Action → Retest.

One Vault, Compounding Data – The New Collateral.



The information-per-person curve rises every year;
DEPH is the chain that prices and secures that collateral.

IP-NFT Engine: Royalty-Bearing Biological Intelligence.



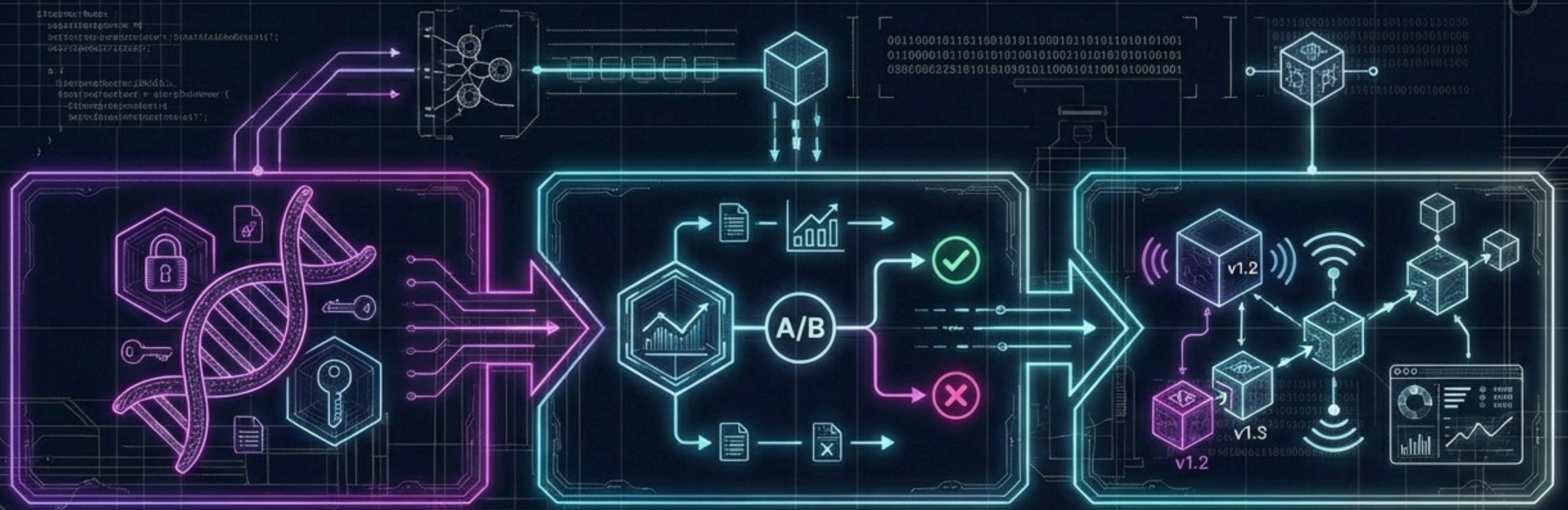
High-confidence models wrapped into IP-NFTs with programmable royalties.

Pharma & Clinics license IP-NFTs for targeted use.

Royalties flow to holders, users, labs, and protocol.

DEPH = Utility.
IP-NFTs = Regulated Assets.

Model Lifecycle: From Prototype to Production.



PROTOTYPE

Trained on limited cohorts via ZK queries; strict governance.

EVALUATION

Tested on held-out data; underperformers rejected.

PRODUCTION

Deployed as versioned agent routines; monitored on-chain.

DEPH Token: Utilities & Value Flow

Utility first, real yield from real-world biology.

Core Utilities

utility

Gas & Execution – "All L1 transactions and HealthID operations."

ZK Compute Fees – "Fuel for privacy-preserving queries and training jobs."

L1 Staking – "Securing the sovereign bio L1 via validators and delegators."

Governance – "Voting on fees, treasury, and rail parameters."

Protocol Take & Yield

real yield

Digital Pipe – "20% share on app subscriptions and digital services."

Logistics Pipe – "30% margin on labs, kits, and logistics."

Split – "Protocol revenue: 50% burn (scarcity), 50% treasury (growth)."

Rewards – "Fees flow to validators and vertical staking pools; no passive yield."

DEPH has fixed supply and no inflationary emissions; value accrues via usage, protocol fees, and burn, not speculation.

Token Allocation & Matrix

COMMUNITY: 50%

ECOSYSTEM: 25%

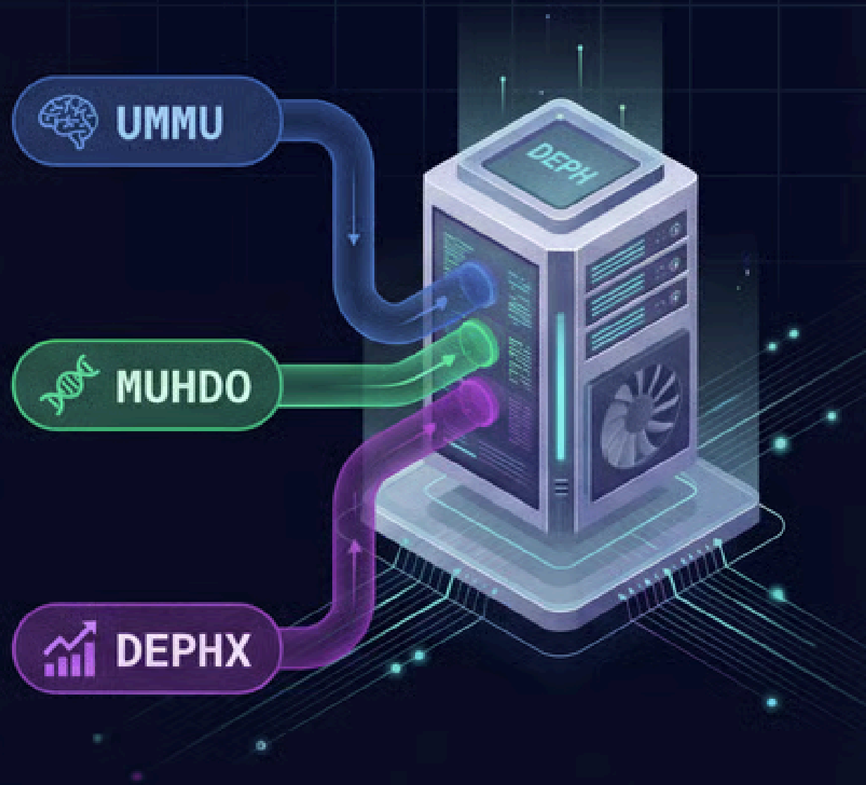
STRATEGIC PARTNERS: 15%

TEAM: 10% (4-year vesting)

Total Supply: 369,000,000 DEPH (Fixed). No Inflationary Minting.

PROTOCOL REVENUE POTENTIAL

Combined Users	Monthly Protocol Revenue	Annual Revenue
10,000	$200K/month	$2.4M/year
50,000	$1M/month	$12M/year
100,000	$2M/month	$24M/year



PROTOCOL REVENUE SPLIT: 50% → Token Burn (Deflationary), 50% → DAO Treasury (Development).
No Passive Yield. Rewards strictly for active validator nodes.

Application Tokens on DEPH Rails

UMMU – Women's Health

Priority access, feature unlocks, local governance.

DEPHX – Performance

Priority access, feature unlocks, local governance.

MUHDO – Epigenetics

Priority access, feature unlocks, local governance.

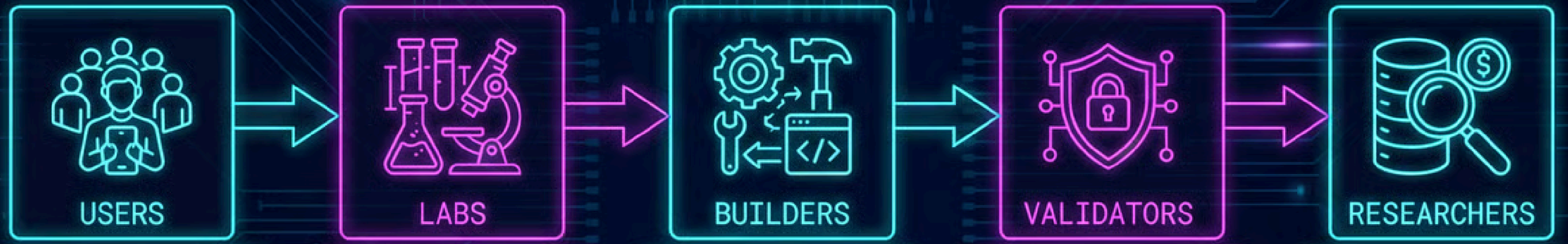
DEPH – Sovereign L1 (Settlement & Security)

All net value and fees ultimately clear in DEPH at L1.

How App Tokens Work

- Optional L2/app tokens for UX, priority, and vertical governance.
- DEPH remains the shared gas, staking, and protocol-fee asset.
- Firewall: app tokens have no claim on IP-NFT cashflows.

NETWORK STAKEHOLDERS & VALUE EXCHANGE



USERS

Contribute:
Health Data, Personal Records, Biomarkers

Receive:
Health Insights, Personalized Recommendations, Monetization, Tokens

LABS

Contribute:
Diagnostics, Clinical Testing, Analysis

Receive:
Wholesale Volume, Consistent Demand, Revenue Share, Access to Data

BUILDERS

Contribute:
User Interface (UI), Audience, Applications, Platform Development

Receive:
80% Revenue Share, Infrastructure Support, API Access, Network Effects

VALIDATORS

Contribute:
Security, Consensus Mechanisms, Network Integrity, Transaction Verification

Receive:
Gas Fees, Compute Fees, Block Rewards, Staking Incentives

RESEARCHERS

Contribute:
Capital, Research Funding, Project Support, Analytical Expertise

Receive:
Verified Cohorts (No PII), Aggregated Data Access, Early Access to Findings, Investment Returns

Firewall: Money Legos vs IP Legos.

DEPH TOKEN (UTILITY)

- Gas, ZK compute, staking, governance.
- No direct claim on IP cashflows.
- Permissionless.

FIREWALL

IP-NFTs (SECURITY)

- Regulated, royalty-bearing contracts.
- KYC/AML-gated.
- Compliance surface for institutions.

Built For Regulators, Designed To Win.

Risk Mitigation

- **Data:** PHI off-chain. Chain sees only proofs.

- **Model:** Lifecycle controls & expert committees.

- **Validator:** Slashing for downtime.

Roadmap Timeline.

2026

Scale UMMU, MUHDO, DEPHX.

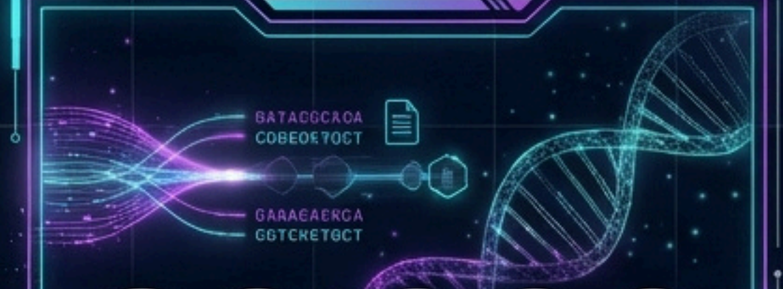
2027

Activate IP Marketplace. Mental/Metabolic Verticals.

2028

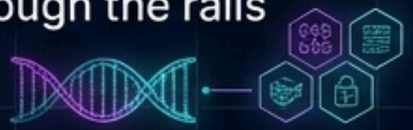
Default global rail for biological AI settlement.

Already Operating at Bio-Scale



80,000

Epigenetic tests processed through the rails



Epigenetic tests processed through the rails

300+

Partner clinics worldwide integrated into DEPH logistics

Partner clinics worldwide integrated into DEPH logistics

3

Live app rails: UMMU, MUHDO, DEPHX

Live app rails: UMMU, MUHDO, DEPHX

Protocol fees already generated via digital rake and cost-plus logistics.