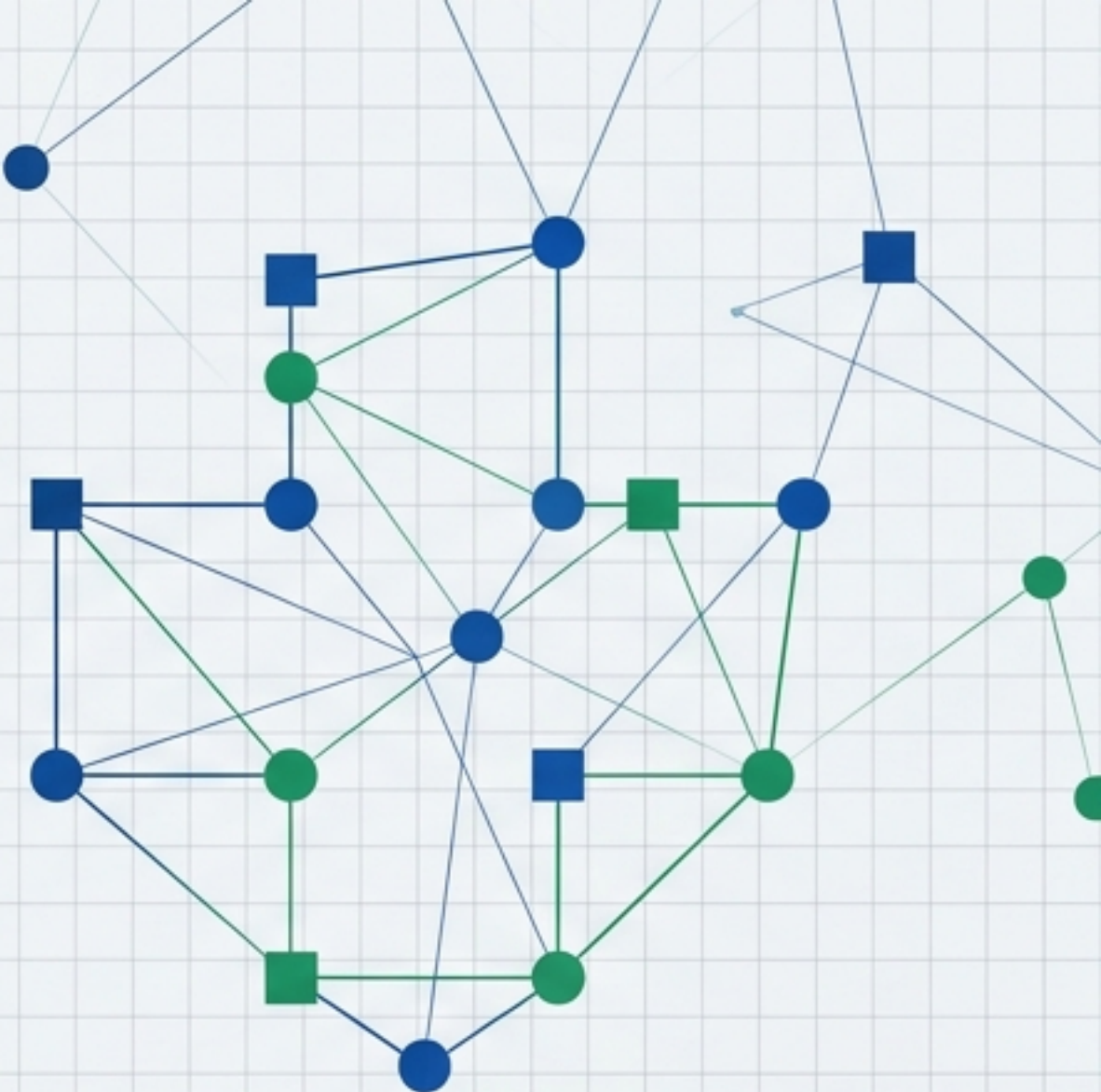


INTELLIGENT CLINICAL MEDICATION ASSISTANCE (ICMA)

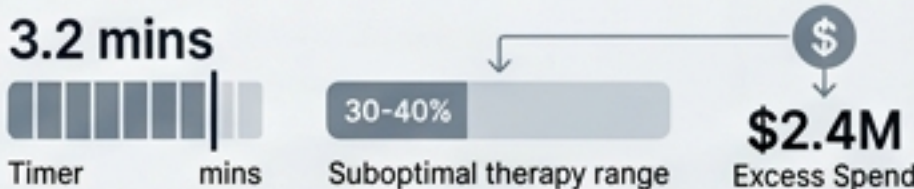
FROM PASSIVE SAFETY CHECKS TO ACTIVE THERAPEUTIC OPTIMIZATION.

EXECUTIVE BRIEFING | Q1 2024 STRATEGY DOSSIER



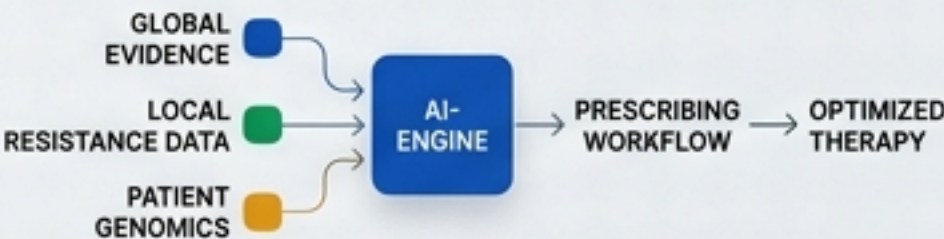
THE PROBLEM

Clinicians have just **3.2 minutes** per medication decision, resulting in **30-40%** suboptimal therapy and **\$2.4M** in annual excess spend.



THE SOLUTION

An AI-powered decision support engine integrating global evidence, local resistance data, and patient genomics directly into the prescribing workflow.

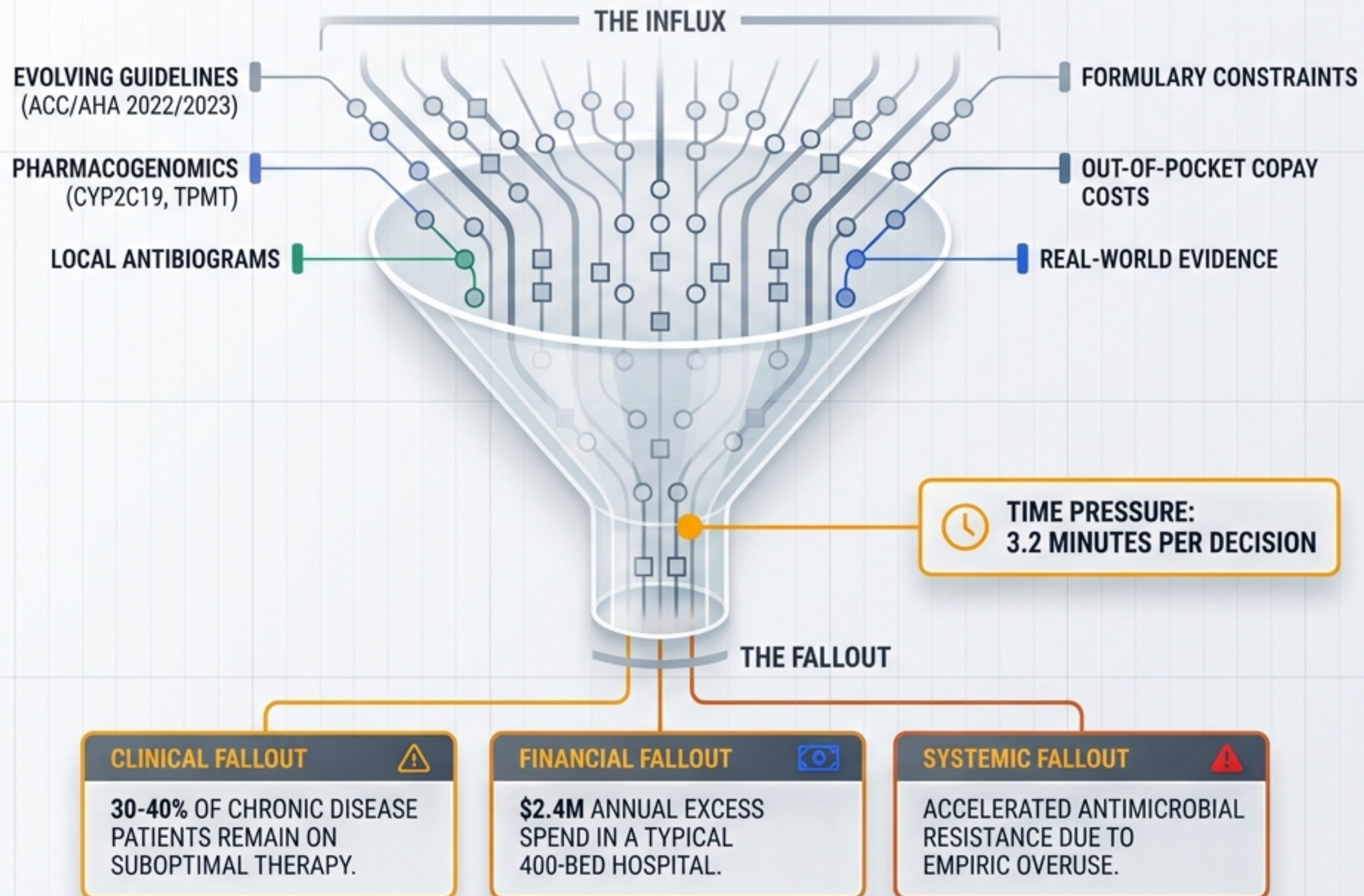


THE IMPACT

A projected shift to **89% guideline concordance** and a **+1,043% net ROI** by Year 3 (Break-even: Month 16).



THE COGNITIVE BOTTLENECK: THE IMPOSSIBILITY OF MODERN PRESCRIBING



THE PARADIGM SHIFT: FROM PASSIVE SAFETY TO ACTIVE OPTIMIZATION

CURRENT STATE



EHR SAFETY CHECKS (PASSIVE)

- Interrupts only to prevent fatal errors (e.g., severe allergies, critical drug-drug interactions).
- Result: Severe **alert fatigue** (40+ alerts/day, 80% irrelevant) resulting in **status quo** clinical outcomes.

CURRENT STATE

PASSIVE APPROACH

PASSIVE APPROACH

THE SHIFT:
FROM 'DO NO HARM'
TO 'ACHIEVE
OPTIMAL OUTCOME'

FUTURE STATE



ICMA THERAPEUTIC OPTIMIZATION (ACTIVE)

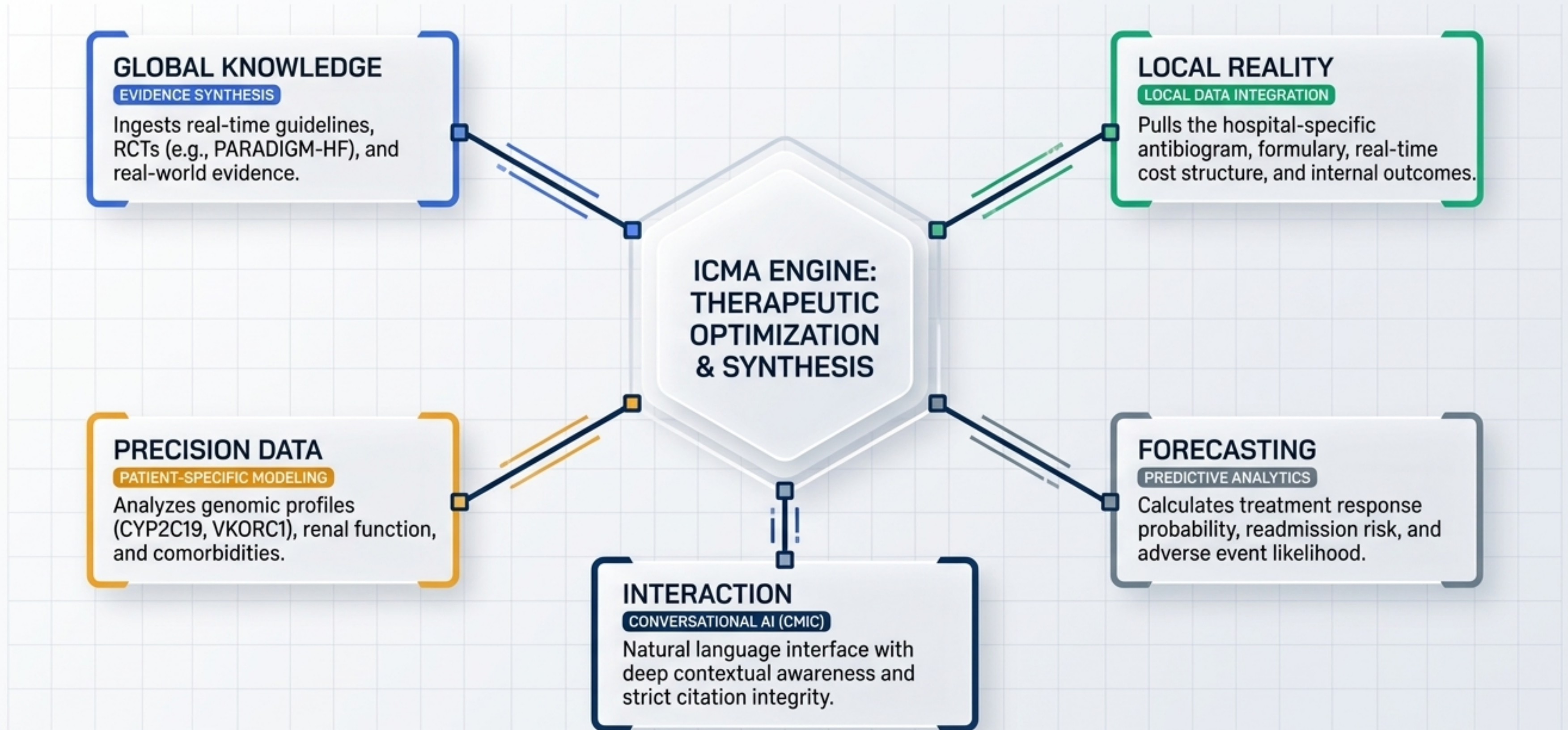
- Synthesizes complex patient data to actively calculate and recommend the best possible medication among all safe alternatives.
- Result: **Precision medicine** delivered in real-time, matching therapy to **local outcomes**, cost data, and **genomics**.

FUTURE STATE

ACTIVE APPROACH

ACTIVE APPROACH

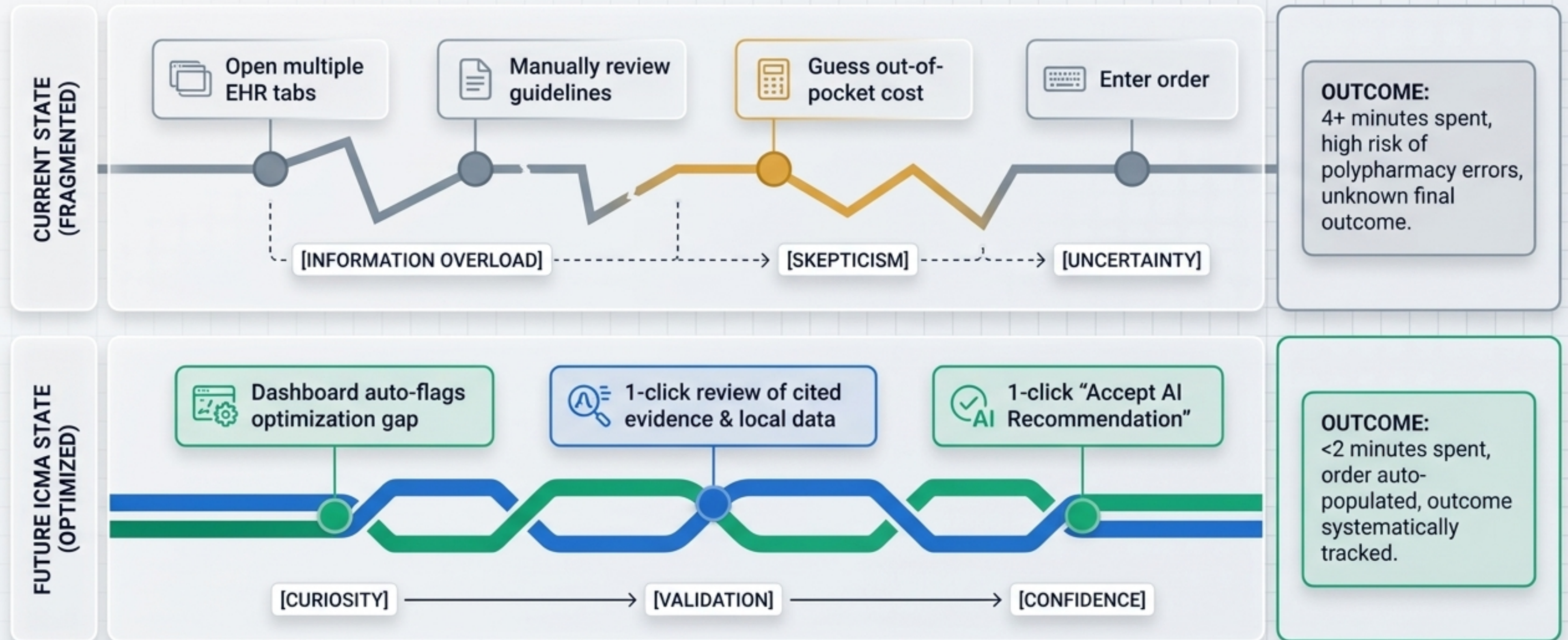
THE ICMA INTELLIGENCE ENGINE: SYSTEM ARCHITECTURE



MULTIDISCIPLINARY IMPACT: SOLVING DOMAIN-SPECIFIC PAIN POINTS

CLINICAL ROLE	PRIMARY PAIN POINT	THE ICMA "SUPERPOWER"	TARGET KPI IMPROVEMENT
Cardiology Attending (Heart Failure)	Guideline overload & hidden pharmacogenomic data.	Point-of-care citation retrieval & real-time actionable PGx alerts.	15% relative reduction in condition-specific readmissions.
Infectious Disease Fellow	Empiric overuse & reliance on static quarterly antibiograms.	Real-time local resistance alerts & structured culture-driven de-escalation paths.	25% reduction in broad-spectrum antibiotic days of therapy (DOT).
General Medicine Hospitalist	Alert fatigue & high-risk discharge reconciliation errors.	Tiered alerting & automated cross-referencing of home vs. inpatient meds.	Decision time reduced from 4.2 to 1.8 minutes.
Clinical Pharmacist (Stewardship)	Reactive reviews occurring 24-48h after the order is placed.	Real-time, auto-scored antibiotic appropriateness dashboards.	91% antibiotic appropriateness (up from 71%).

Transforming the Workflow: The Temporal and Emotional Shift



The Command Center: Seamless High-Fidelity UX

ICMA "MAIN SUMMARY CARD"



KEY FEATURE EXPLANATIONS

1. LIVE ACCEPTANCE RATES

Tracks prescriber trust in real-time, categorized by specialty to identify adoption champions and laggards.

CROSS-USE-CASE FLOW



2. CROSS-USE-CASE FLOW

Seamlessly hands off optimized regimens from pre-review to prescribing to patient guidance without data loss.

ACTIVE ALERT TICKER



3. ACTIVE ALERT TICKER

Prioritizes systemic risks (like local resistance spikes) directly in the prescriber's peripheral vision, replacing interruptive pop-ups.

CMIC: Context-Aware Conversational AI

Best second-line option for T2DM in patient with HFrEF?

Recommends SGLT2i
(Dapagliflozin).

91% HIGH
CONFIDENCE ↗

Citations: [1] AHA/ACC 2022 Guidelines,
[2] DAPA-HF Trial.

Patient Context: eGFR is 45. Safe to proceed.

Under the Hood

CONTEXT AWARENESS

Model automatically ingests the active patient's labs (eGFR) and comorbidities without manual prompting.

CITATION INTEGRITY (RAG ARCHITECTURE)

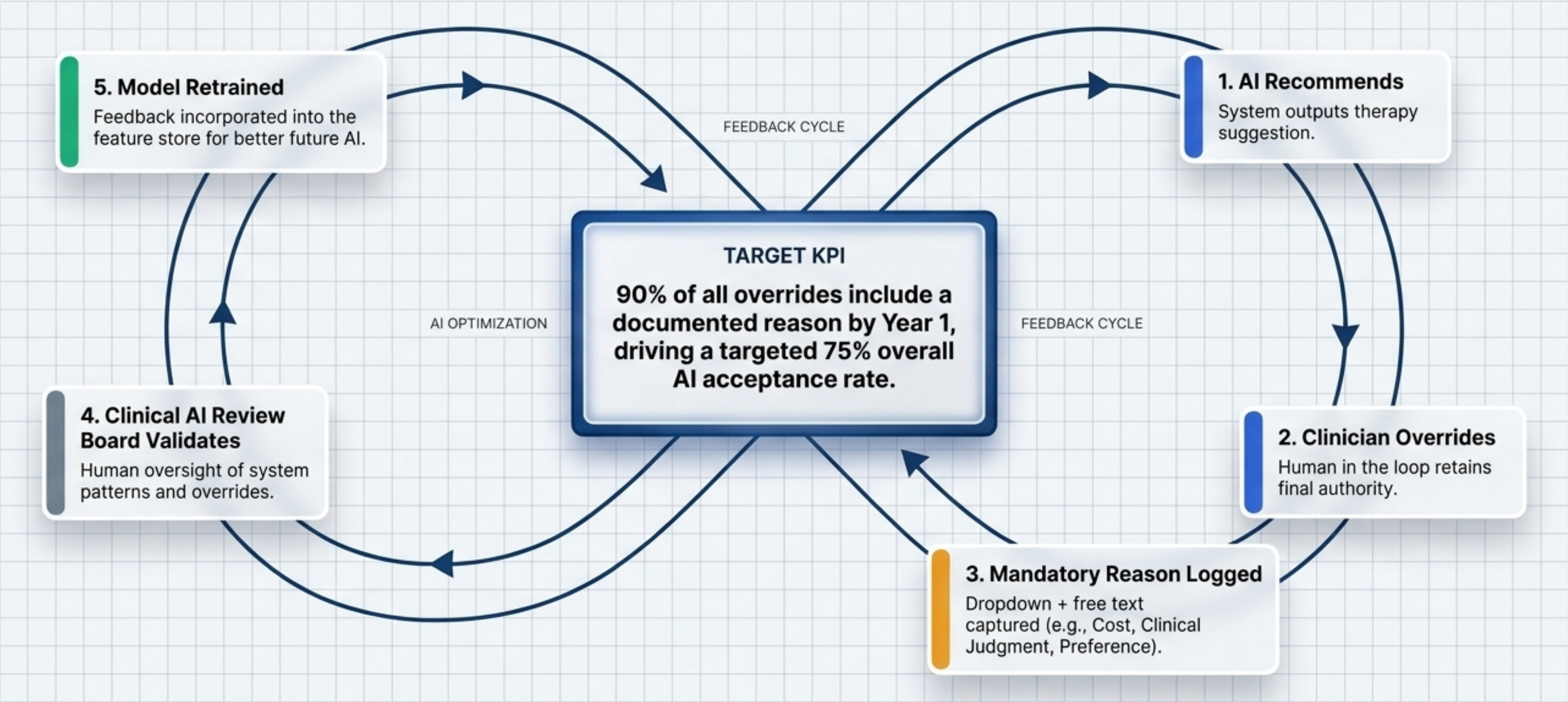
Zero-hallucination design. Every claim is strictly grounded in retrieved local guidelines and embedded RCT links.

LOCAL VALIDATION

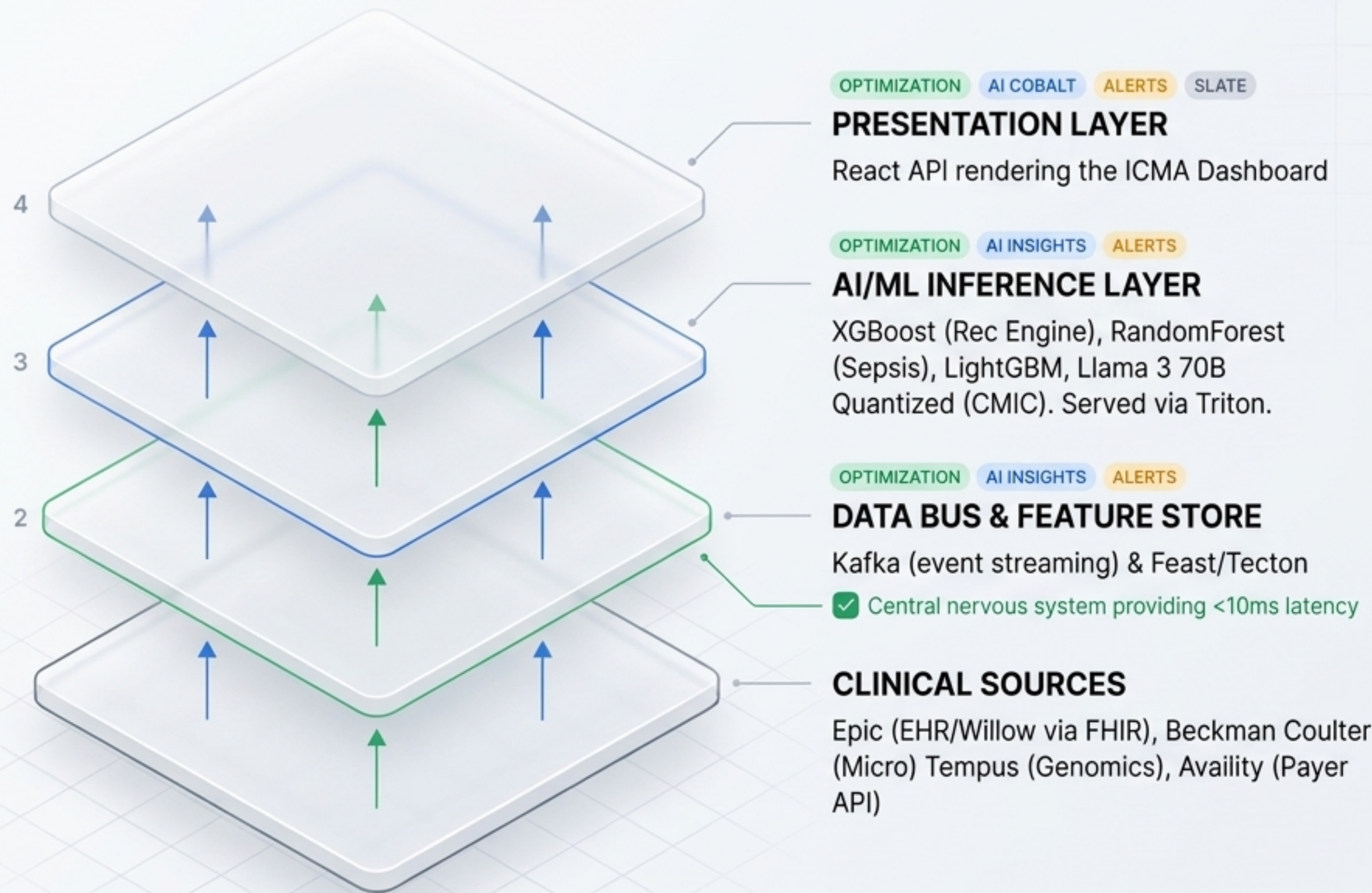
Cross-references global trials with your hospital's specific database (e.g., 'n=412 similar patients here had a 78% response rate').

The Continuous Learning Loop: Feedback as a Feature

PREMIUM, EDITORIAL SLIDE | 16:9 RATIO | PRECISION CLINICAL ARCHITECTURE



Data & Integration Architecture: The Technical Blueprint



ENTERPRISE ASSURANCE



LOW LATENCY INFERENCE

Sub-50ms inference latency for predictive models ensuring zero workflow disruption

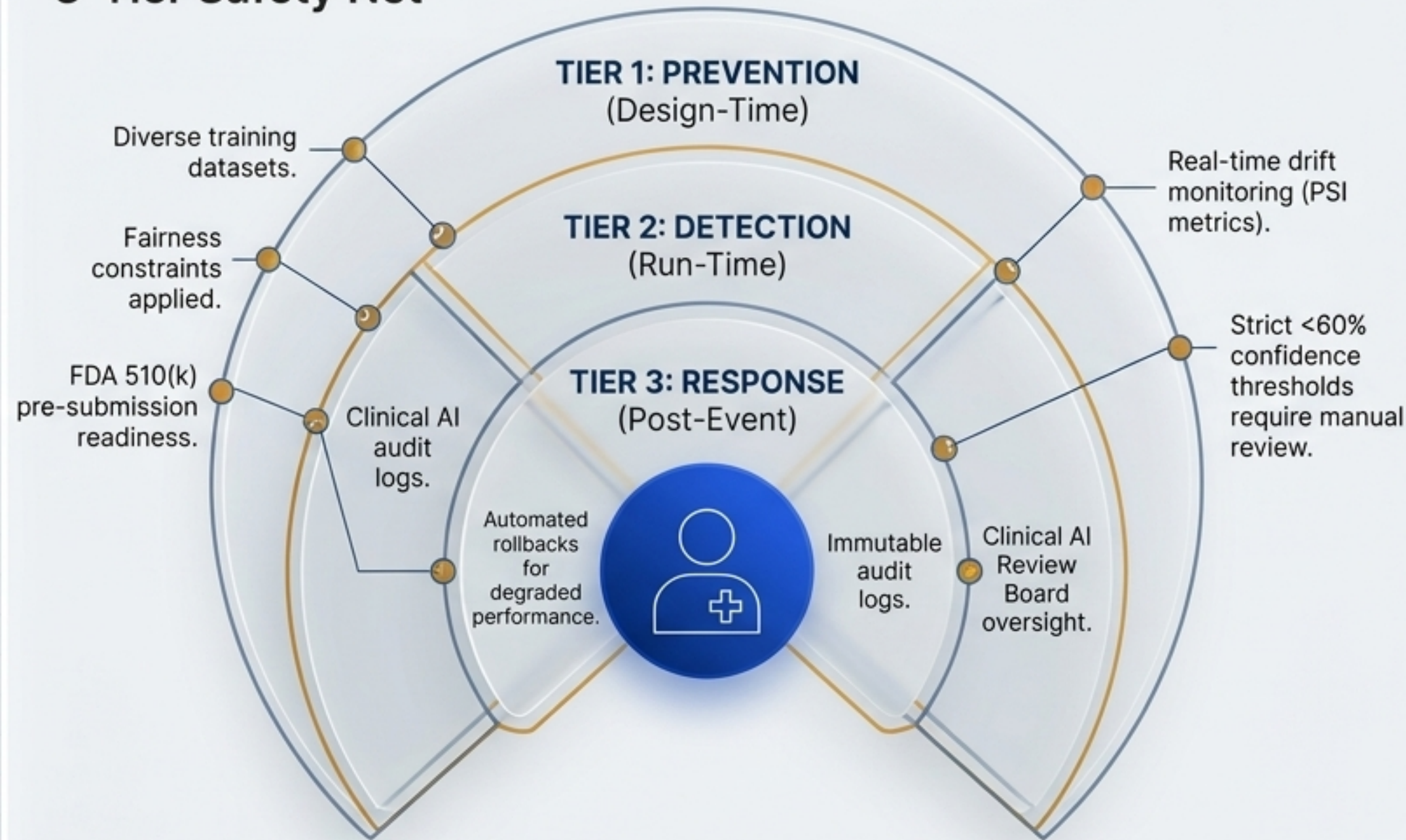


SECURITY & COMPLIANCE

100% HIPAA compliant, AES-256 encrypted at rest, TLS 1.3 in transit

Trust, Governance & Bias Mitigation

3-Tier Safety Net



EQUITY BY DESIGN

Continuous Bias Parity Check

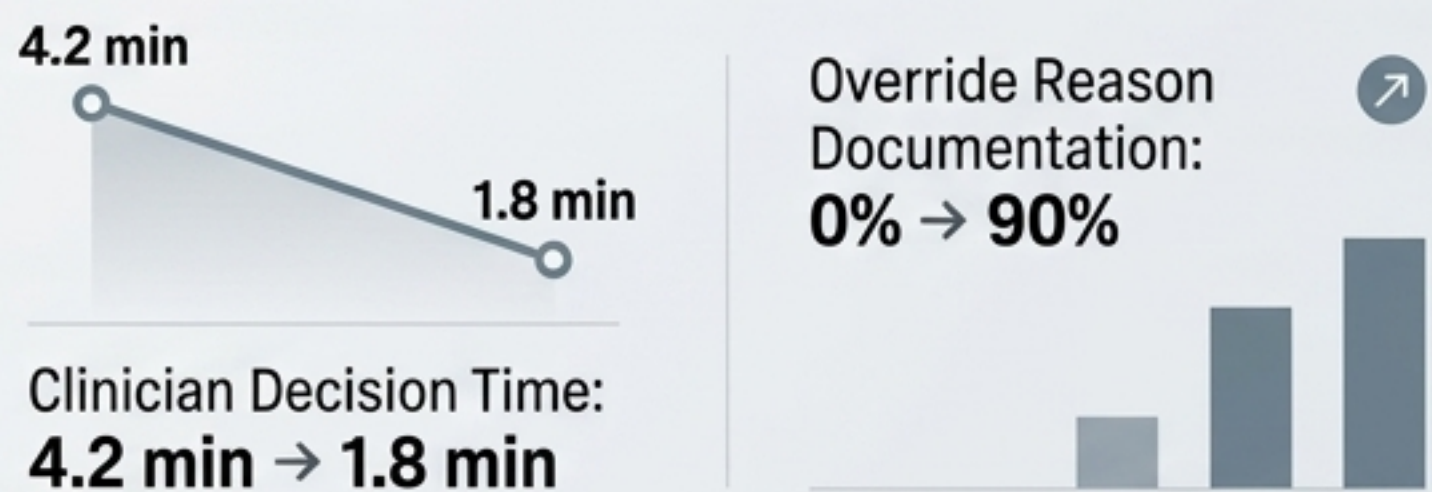
Engineered to **maintain <3% performance gap** across all demographic groups.

The Balanced Scorecard: Defining Success (Baseline vs. Year 2 Target)

CLINICAL OUTCOMES



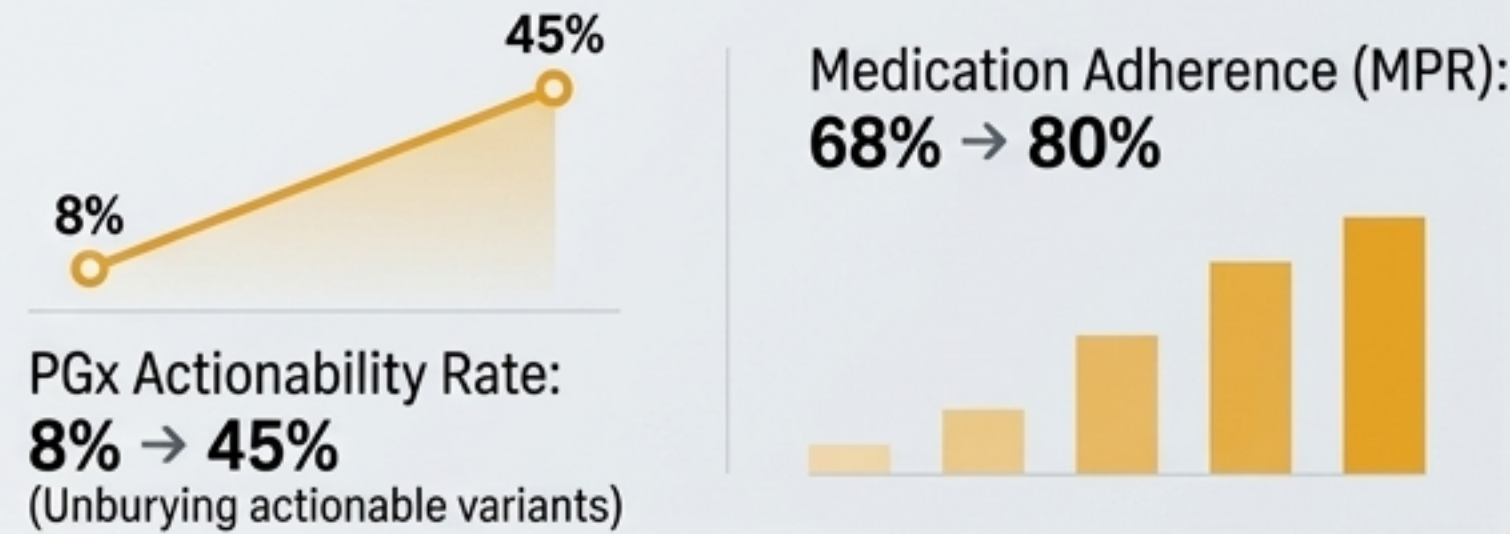
OPERATIONAL EFFICIENCY



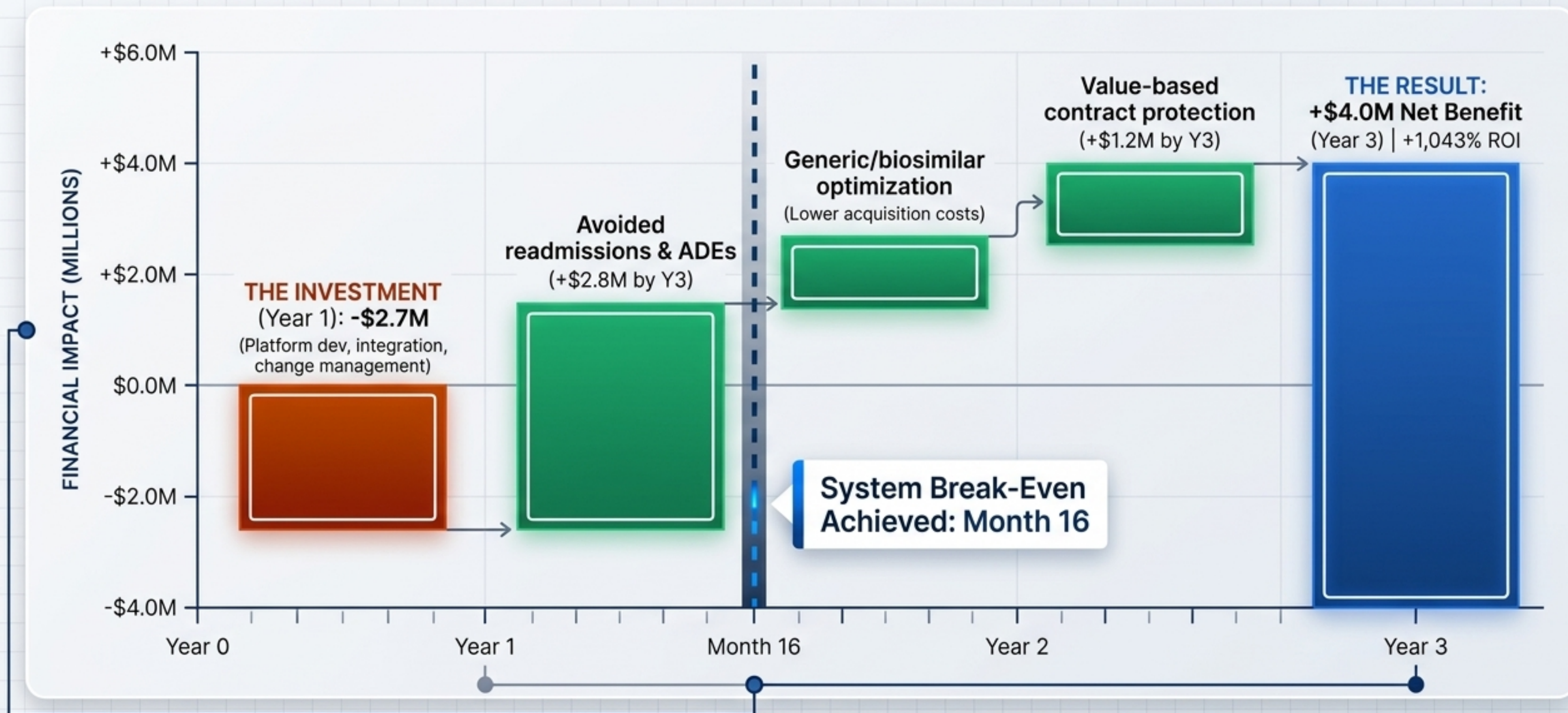
FINANCIAL PERFORMANCE



PATIENT IMPACT

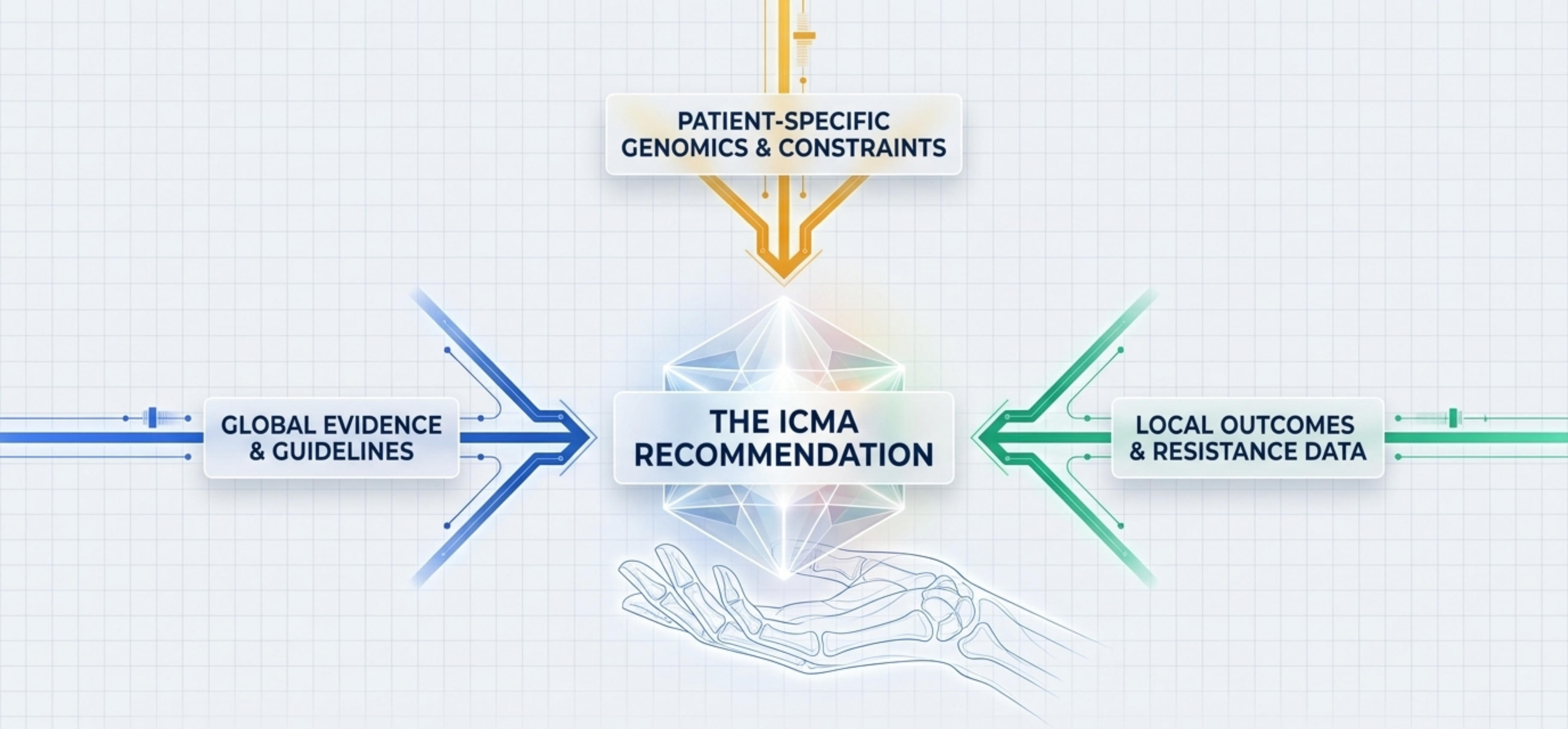


Financial ROI & The Break-Even Path



Implementation Roadmap: A Measured 24-Month Execution





**EVERY MEDICATION DECISION. INFORMED BY GLOBAL EVIDENCE.
VALIDATED BY LOCAL DATA. PERSONALIZED TO THE PATIENT. DECIDED BY THE CLINICIAN.**