

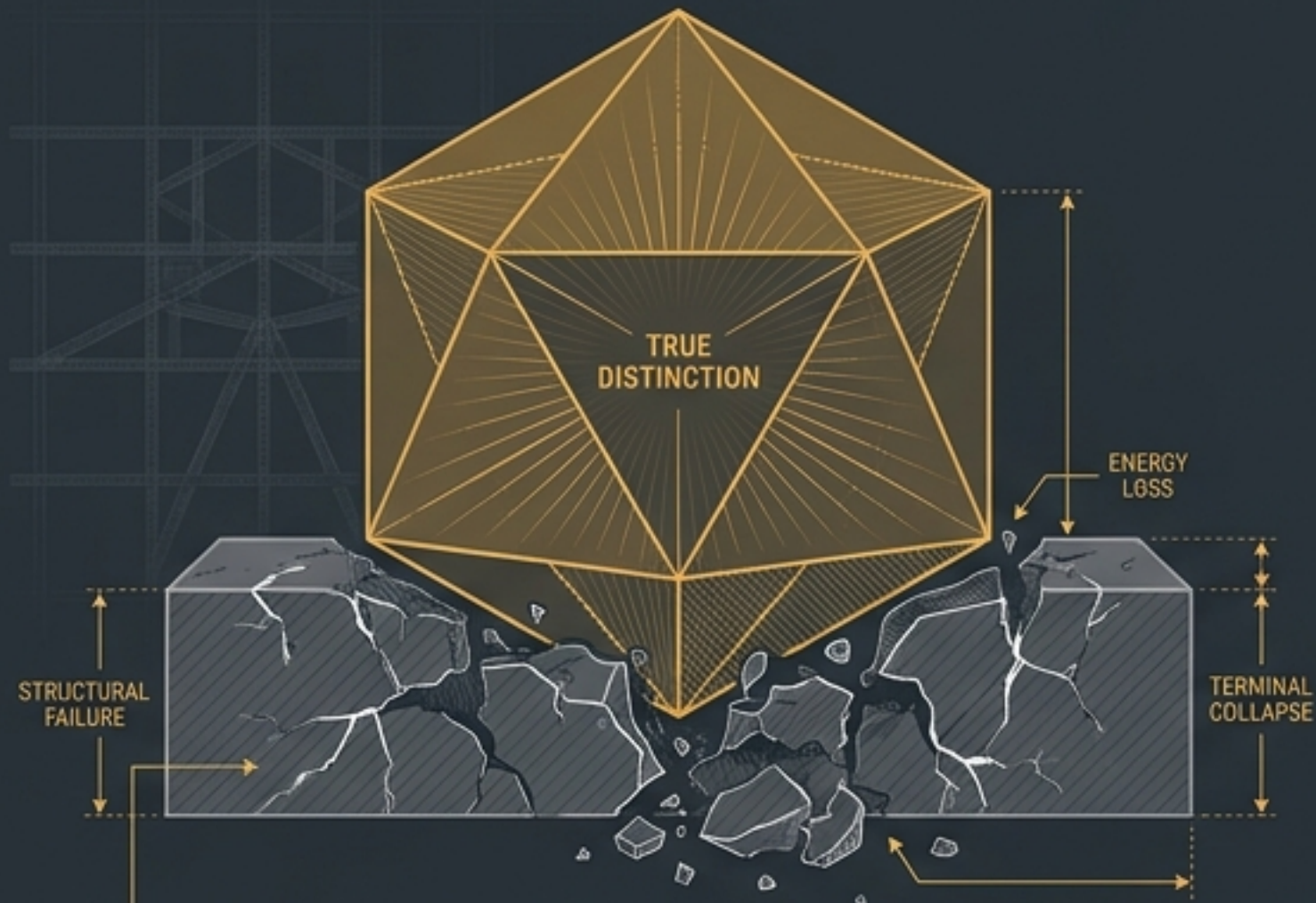
The Lifecycle of Distinctions

A dynamical theory of repair, collapse, and institutional memory.

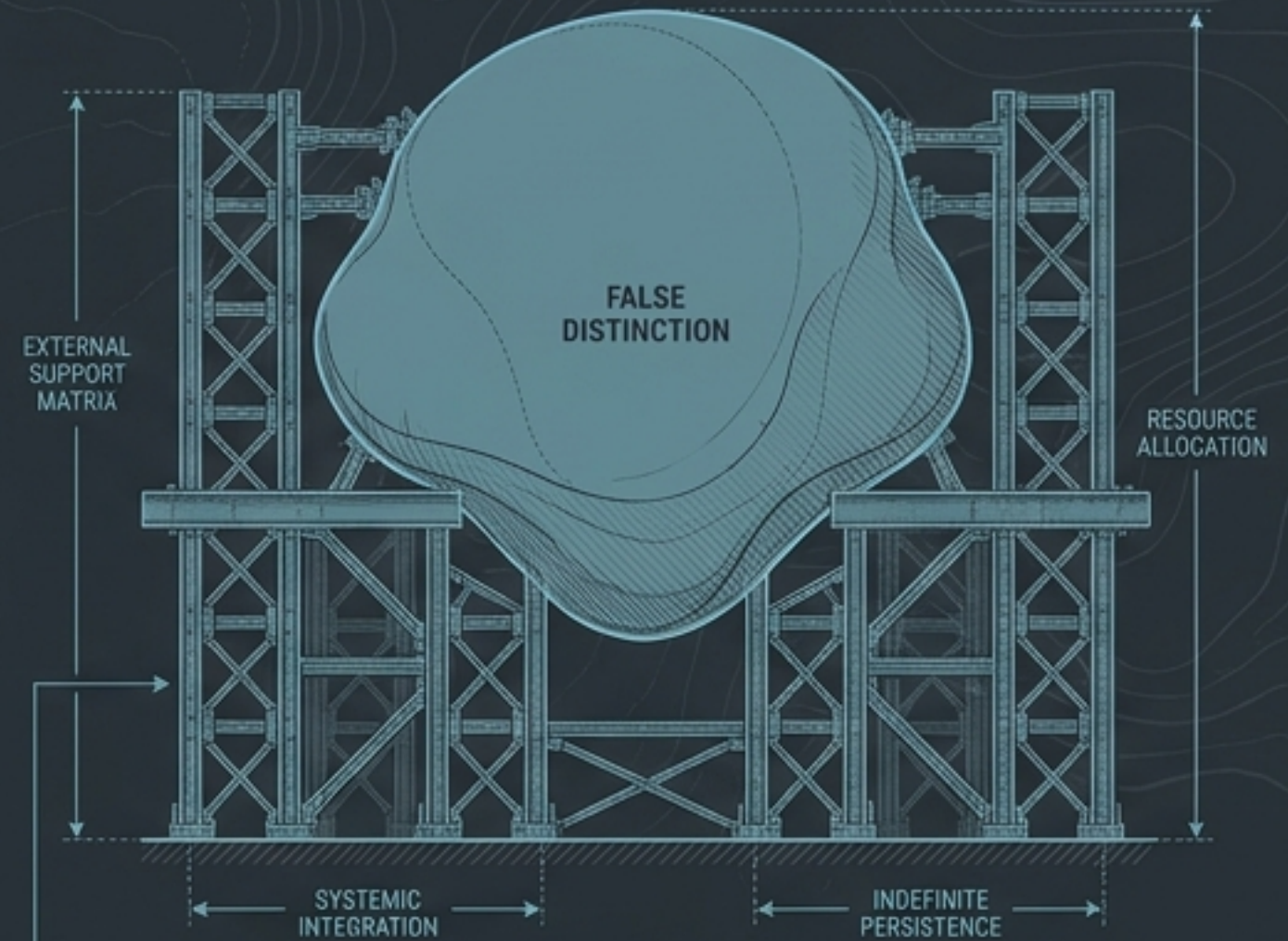
Based on the maintenance-topology framework by Flyxion.

Synthesizing lexical change, philosophy of science, and institutional ecology into a unified phase space.

Truth is Not a Survival Mechanism



The True & Dead: A distinction can be true and dead. If no population pays to maintain it, it collapses.

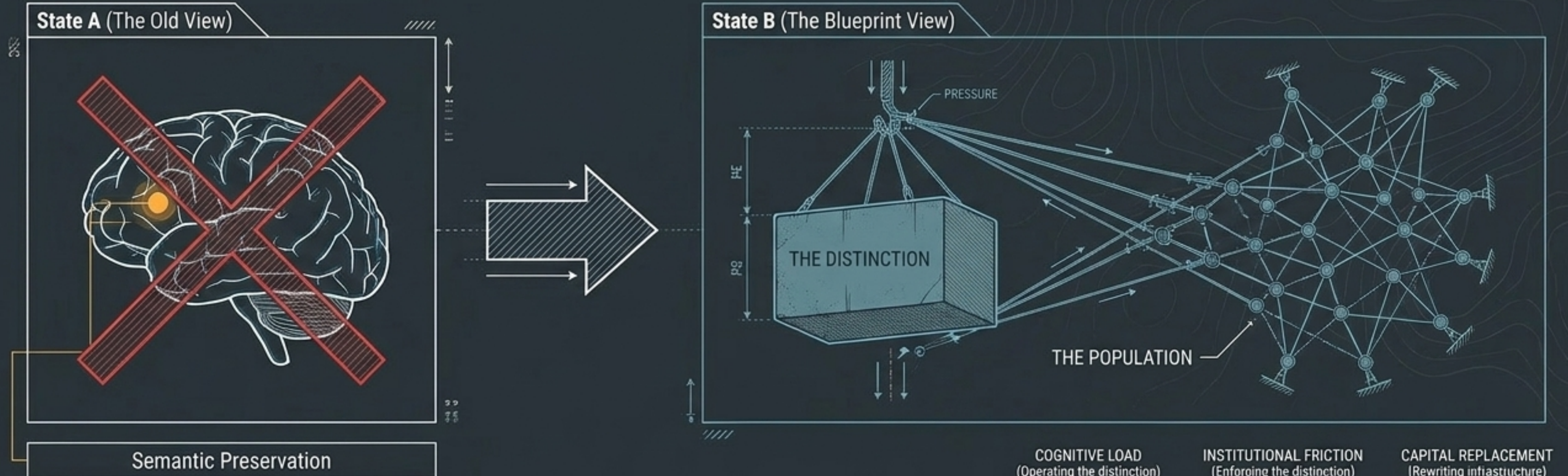


The False & Alive: A distinction can be false and alive. If a population's interests align to bear the cost, it persists indefinitely.

The critical question is never “is this distinction meaningful?” but rather “who is paying the maintenance cost to keep it alive?”

ANALYSIS // ECONOMIC MAINTENANCE COST > THEORETICAL VALIDITY

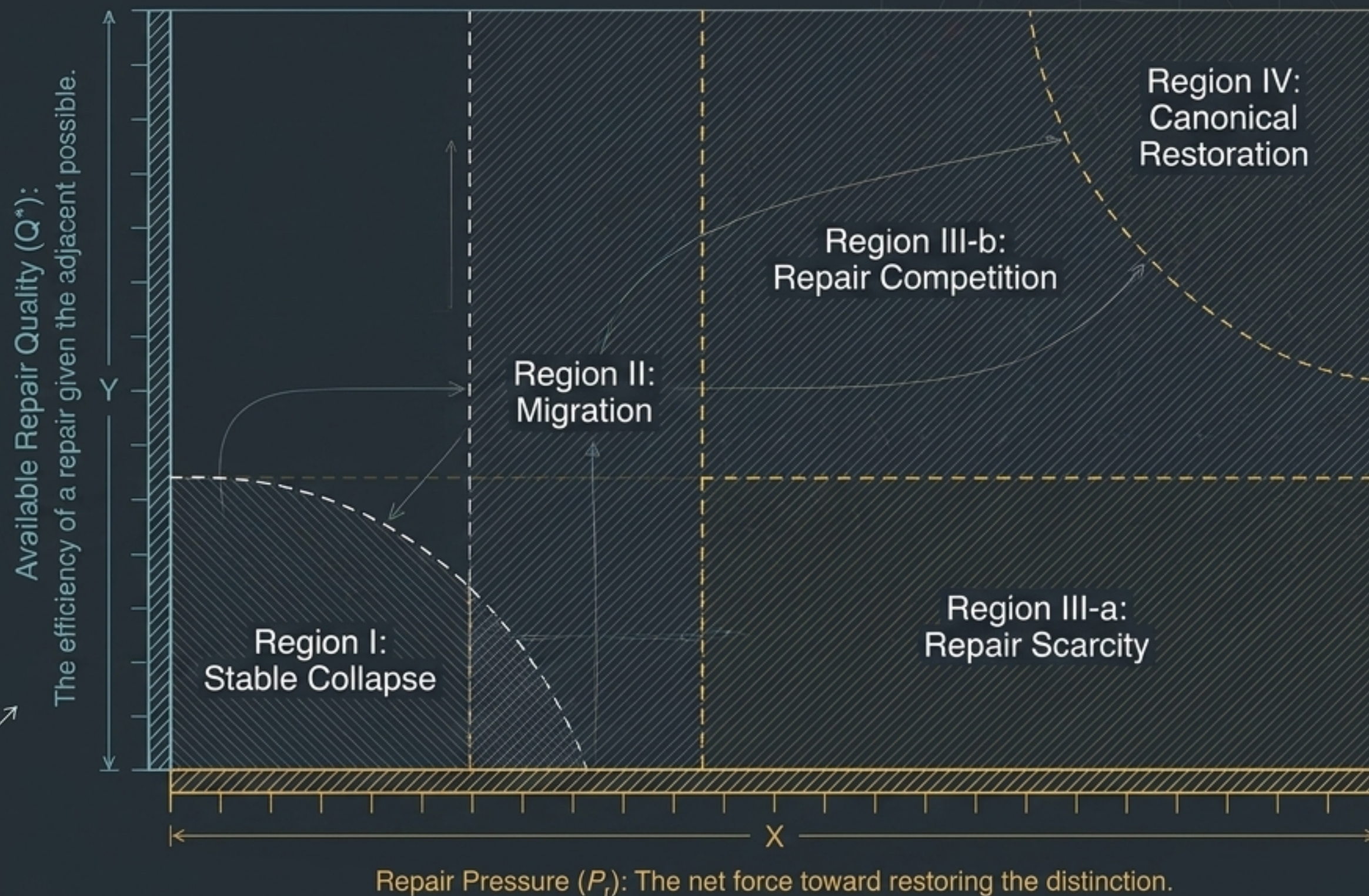
From Semantic Content to Maintenance Topology



CORE RULE: Distinction migration is not primarily a semantic phenomenon but a maintenance-topology transition.

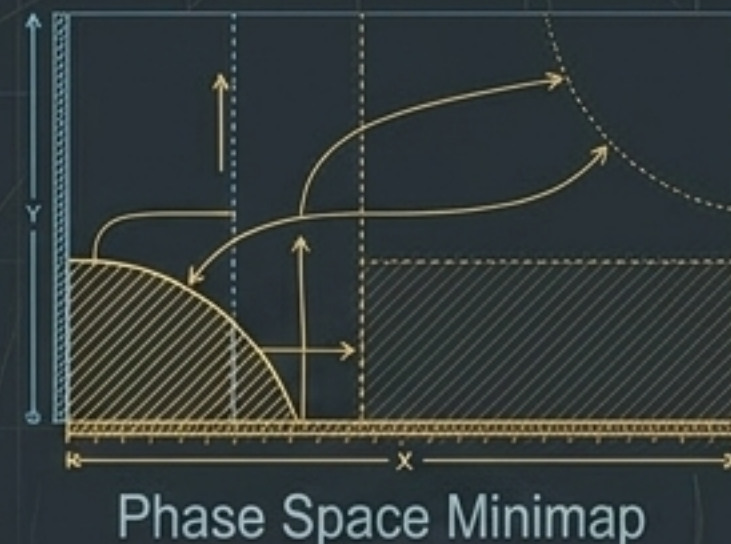
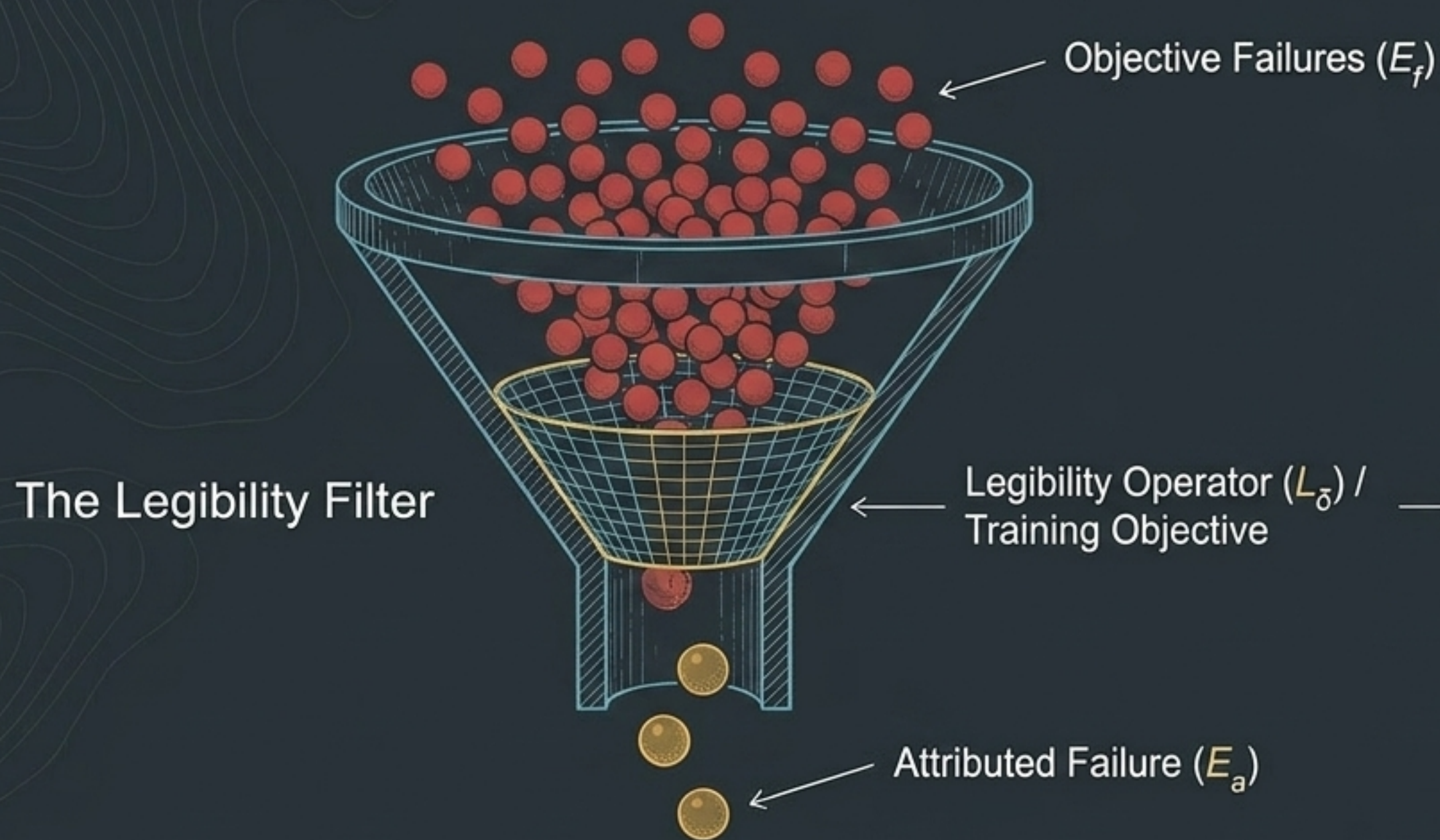


The Cartography of Distinction Lifecycle



Navigation Note: This phase space architecture acts as the foundational territory. It will appear as a coordinate minimap to track our journey through the institutional lifecycle.

Region I: The Illegibility Trap



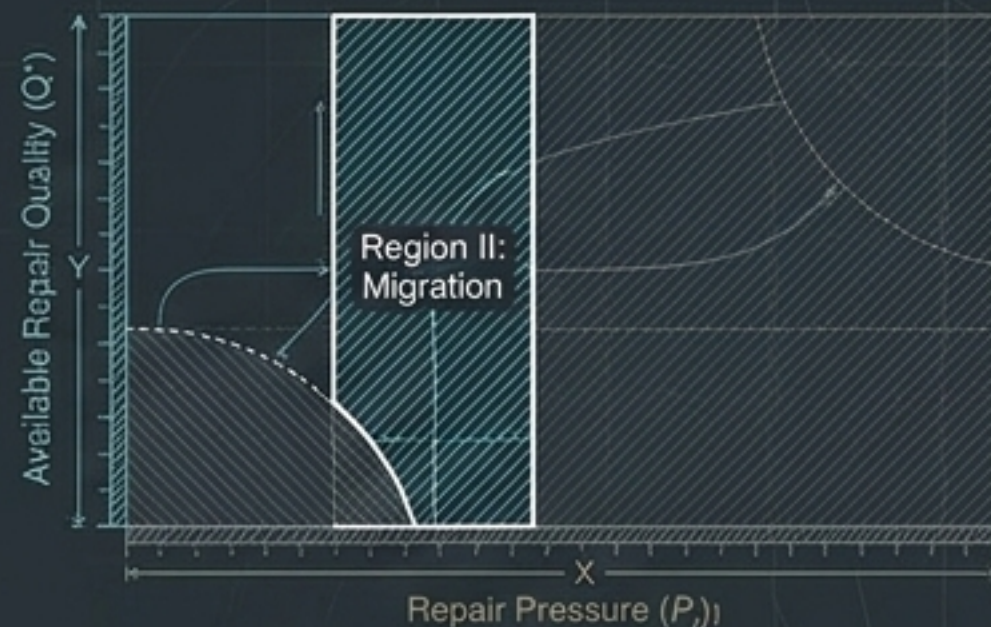
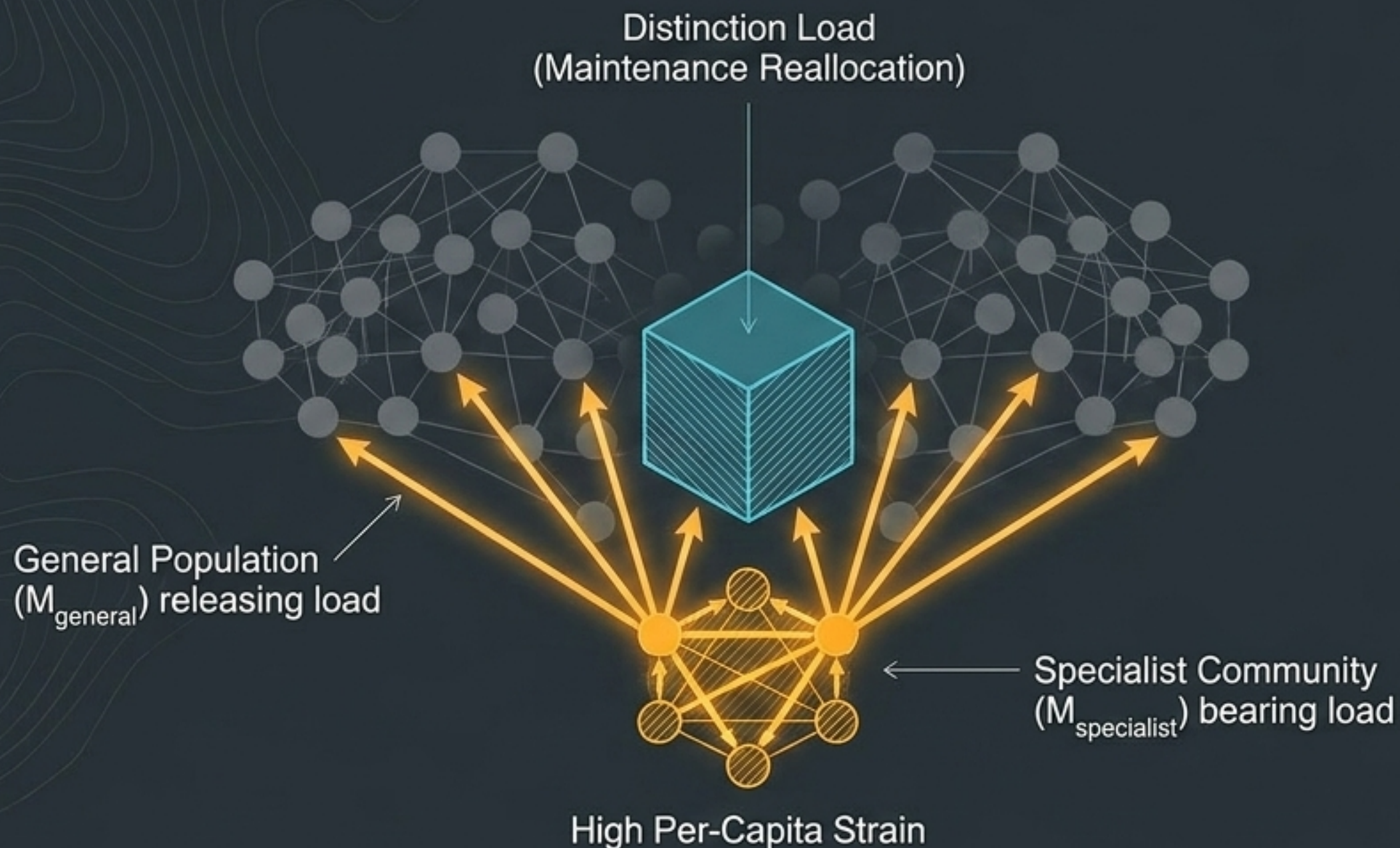
CASE STUDY: AI Use-Mention Collapse

LLMs systematically collapse the distinction between using a word and mentioning it.

The system generates massive logical errors, but the training data measurement regime makes these failures illegible. They register as noise, not as structural collapse.

TAKEAWAY: A distinction can impose continuous objective costs and remain in stable collapse indefinitely if the attribution link is severed.

Region II: Maintenance Reallocation



Phase Space Minimap

CASE STUDY: Legal Torts

The distinction between trespass *vi et armis* and trespass on the case migrated out of ordinary legal practice. It didn't lose meaning; it transferred to a specialist community of legal historians willing to bear a higher per-capita maintenance cost ($M_{\text{specialist}} < P_r < M_{\text{general}}$).

TAKEAWAY: Migration is a stable equilibrium, not a slow death.

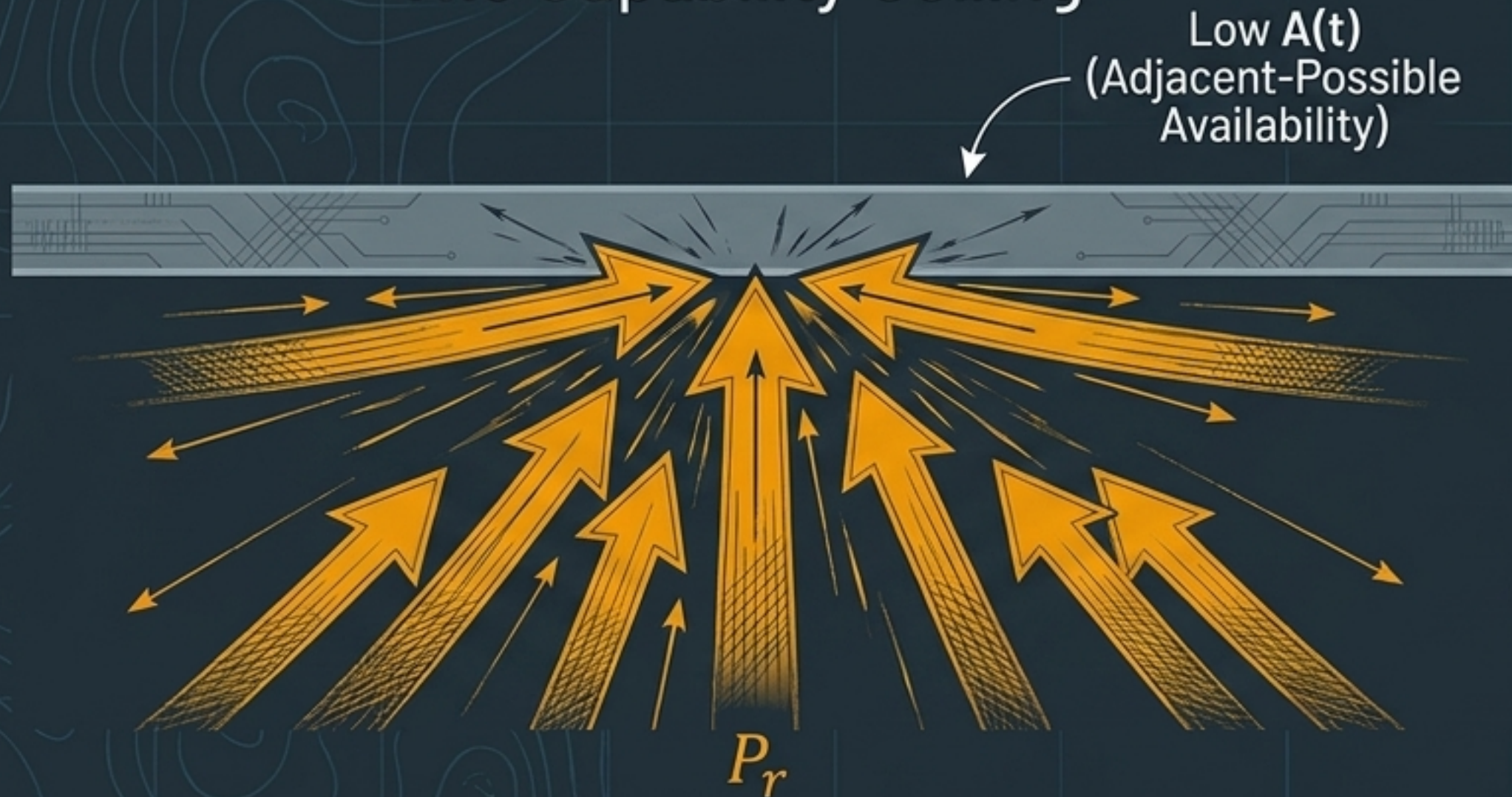
Region III-a: The Tragedy of the Adjacent Possible

I-a Repair Scarcity $P_r \geq \tau_p, Q^* < \tau_Q$	II-b Insatiation $P_r \geq \tau_p, Q^* < \tau_Q$
III-a Repair Scarcity $P_r \geq \tau_p, Q^* < \tau_Q$	III-d Repair Adjacent $P_r \geq \tau_p, Q^* < \tau_Q$

Available Repair Quality (Q^*)

Repair Pressure (P_r)

The Capability Ceiling



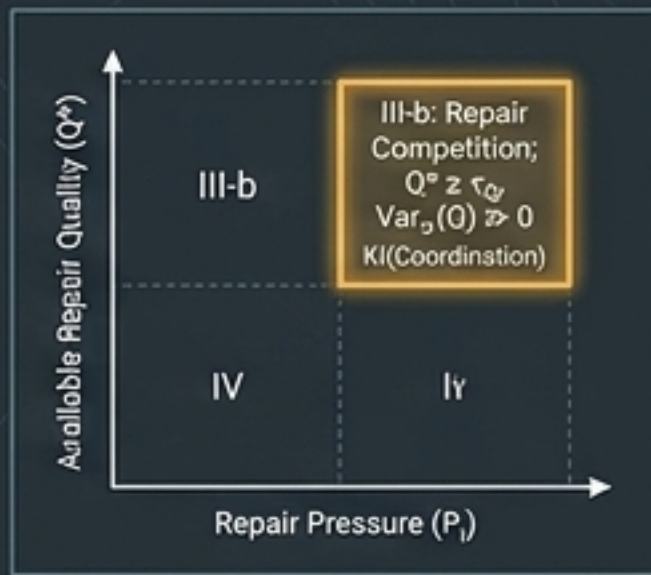
CASE STUDY: Semmelweis & Puerperal Fever

In the 1840s, Semmelweis proved handwashing reduced mortality. Repair pressure was massive.

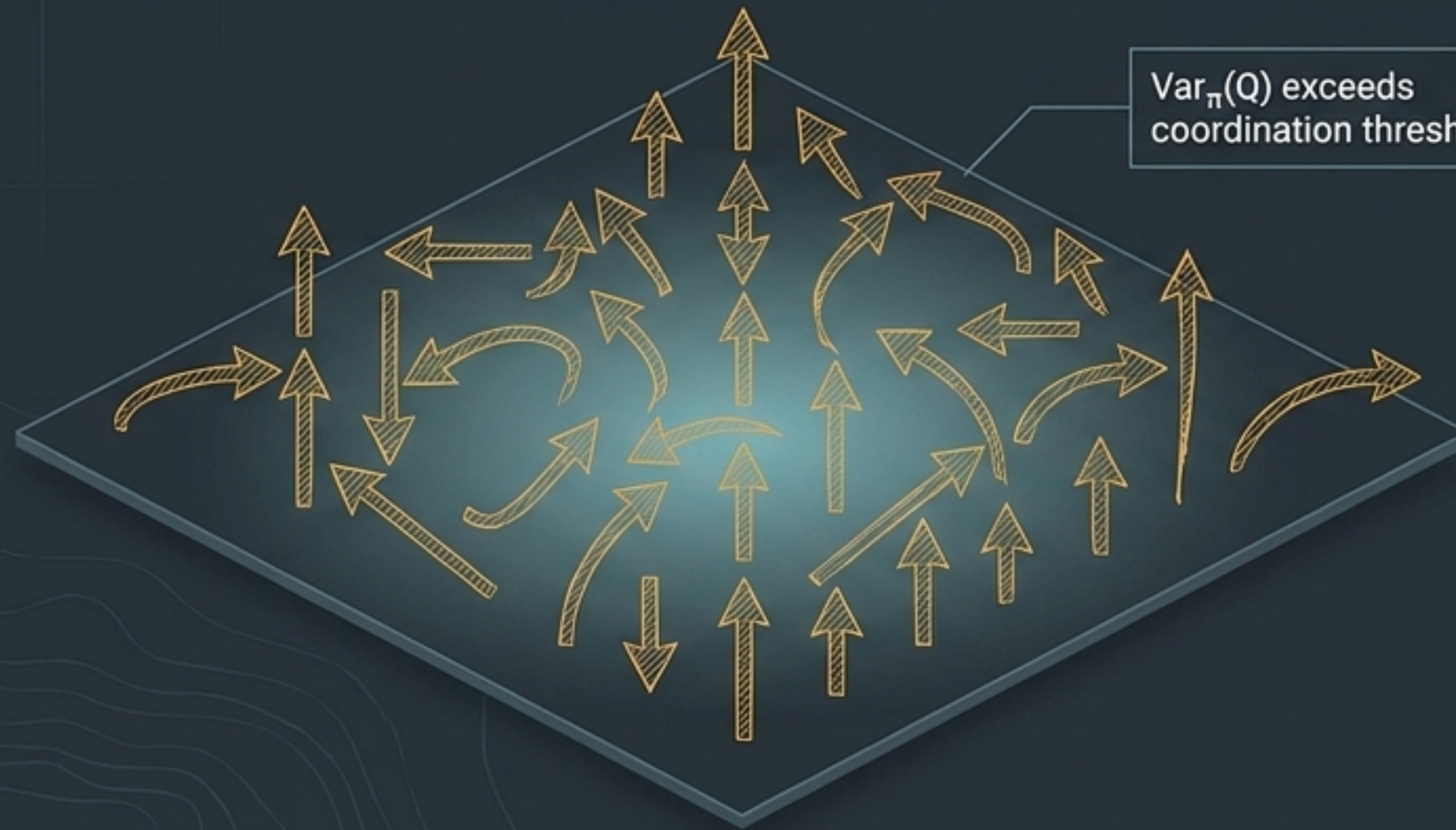
But his repair was rejected because it required abandoning incumbent medical theory. The repair had high local efficiency but low cross-prior quality.

TAKEAWAY: Only when **Germ Theory** emerged—raising the adjacent possible $A(t)$ by integrating microscopy—could the repair cross the adoption threshold.

Region III-b: The Turbulence of Competing Priors



The Vector Scatter



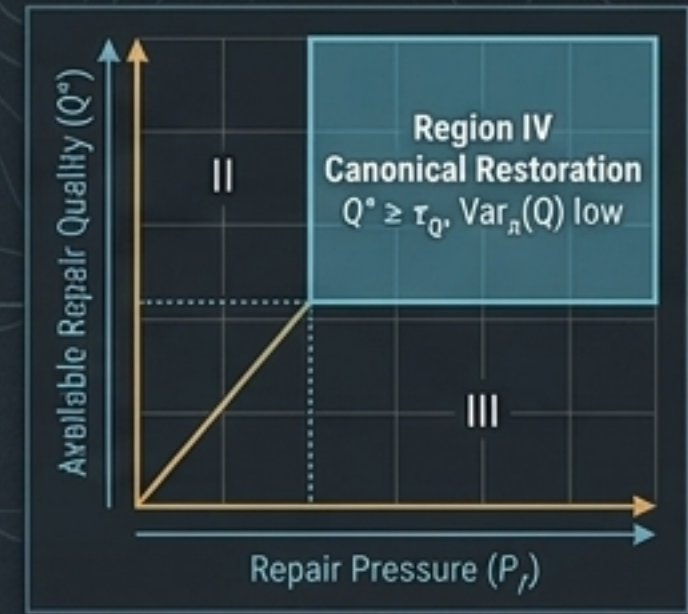
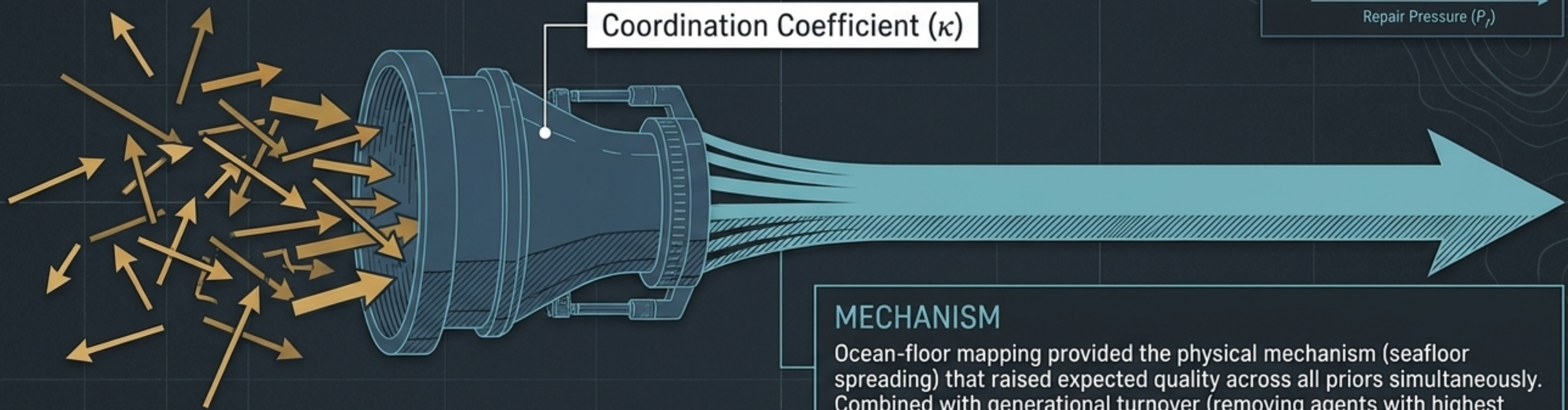
CASE STUDY: Plate Tectonics

Wegener proposed continental drift in 1912. The incumbent contractionist framework was failing, and Wegener's repair existed. But adoption varied wildly based on paleontological vs. geophysical priors. The system was trapped in turbulence, generating competing schools rather than canonical adoption.

TAKEAWAY: High-quality invention is not sufficient. Survival requires synchronization.

Region IV: Forcing the Coordination Bottleneck

The κ Funnel



MECHANISM

Ocean-floor mapping provided the physical mechanism (seafloor spreading) that raised expected quality across all priors simultaneously. Combined with generational turnover (removing agents with highest structural investment in old theories), the variance collapsed.

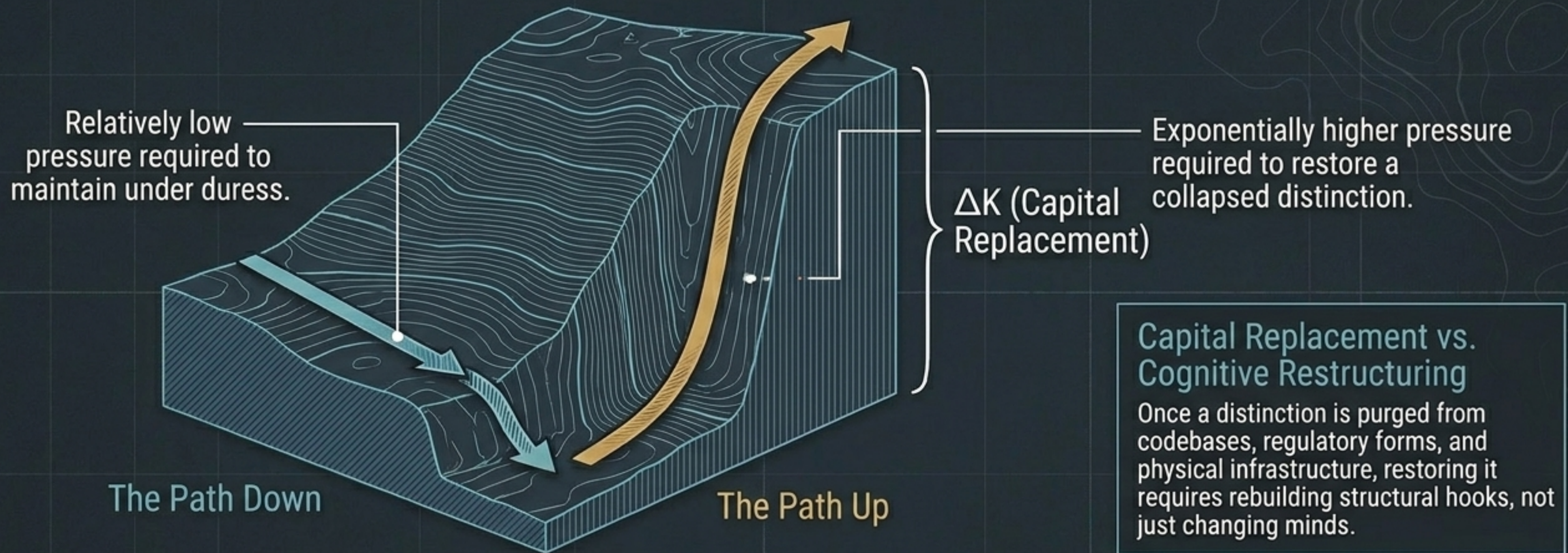
TAKEAWAY: Canonical restoration requires two independent forces: a repair that clears the cross-prior adoption threshold, and institutional coordination to align the community.

The Anatomy of Institutional Turbulence

System State	P_r (Pressure)	Q^* (Quality)		Core Obstacle	Required Intervention
AI Use-Mention	Stable Collapse (Region I)	Low	N/A	Illegibility of Failure	Alter Measurement Regime
Legal Torts	Migration (Region II)	Medium	N/A	Cost Outpaces General Value	Specialist Reallocation
Semmelweis	Repair Scarcity (III-a)	High	Low	Adjacent-Possible Blocked	Conceptual/Technological Invention
Wegener/Tectonics	Repair Competition (III-b)	High	High	Coordination Disagreement	Generational/Institutional κ

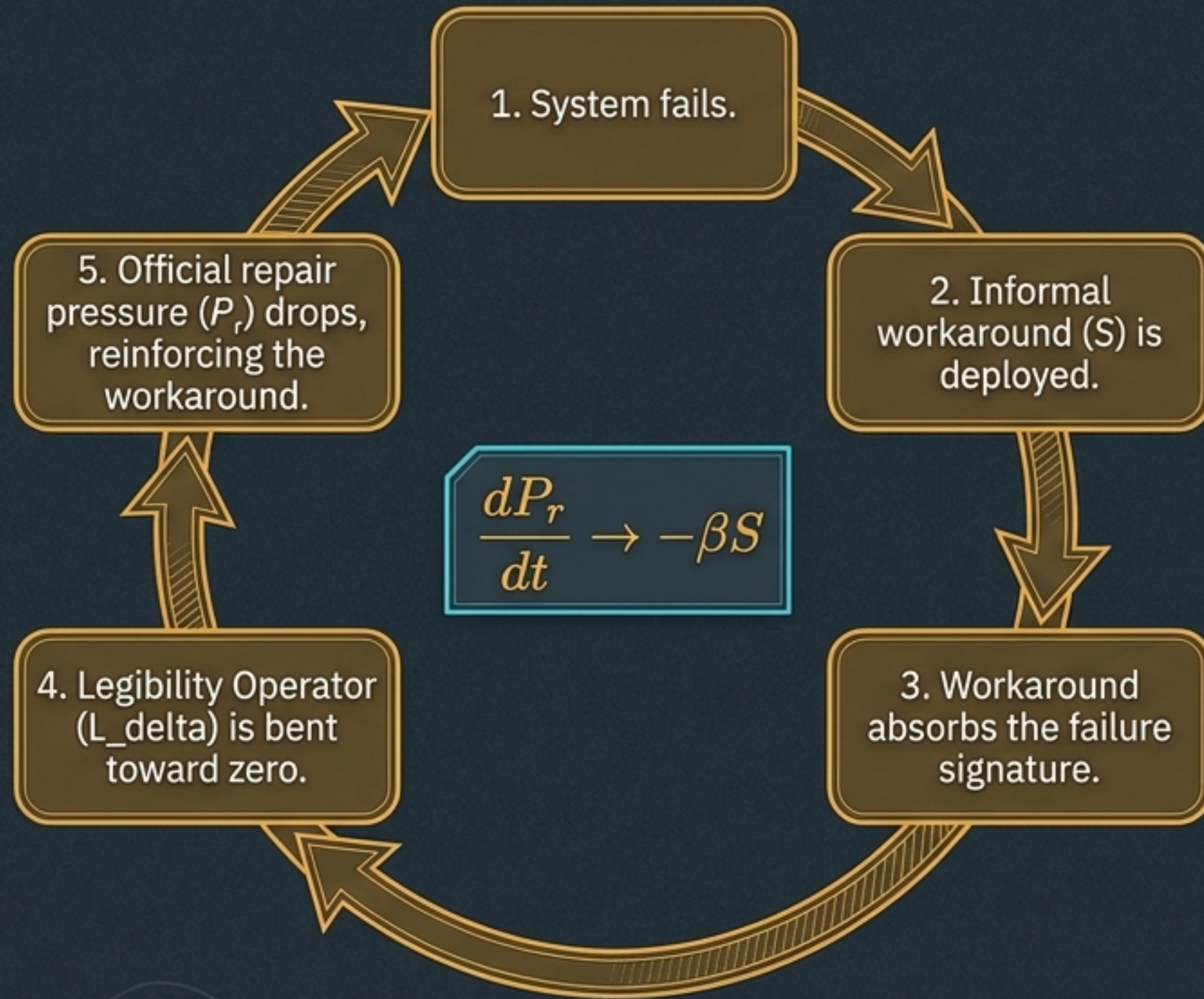
TAKEAWAY: Institutional restoration requires matching the correct intervention to the system's specific turbulent state, accounting for pressure, available quality, and core coordination obstacles.

The Dynamics of Motion: Restoration Hysteresis



SYNTHESIS: Rebuilding a deleted category requires exponentially more energy than maintaining it. The phase-space boundary is entirely asymmetrical.

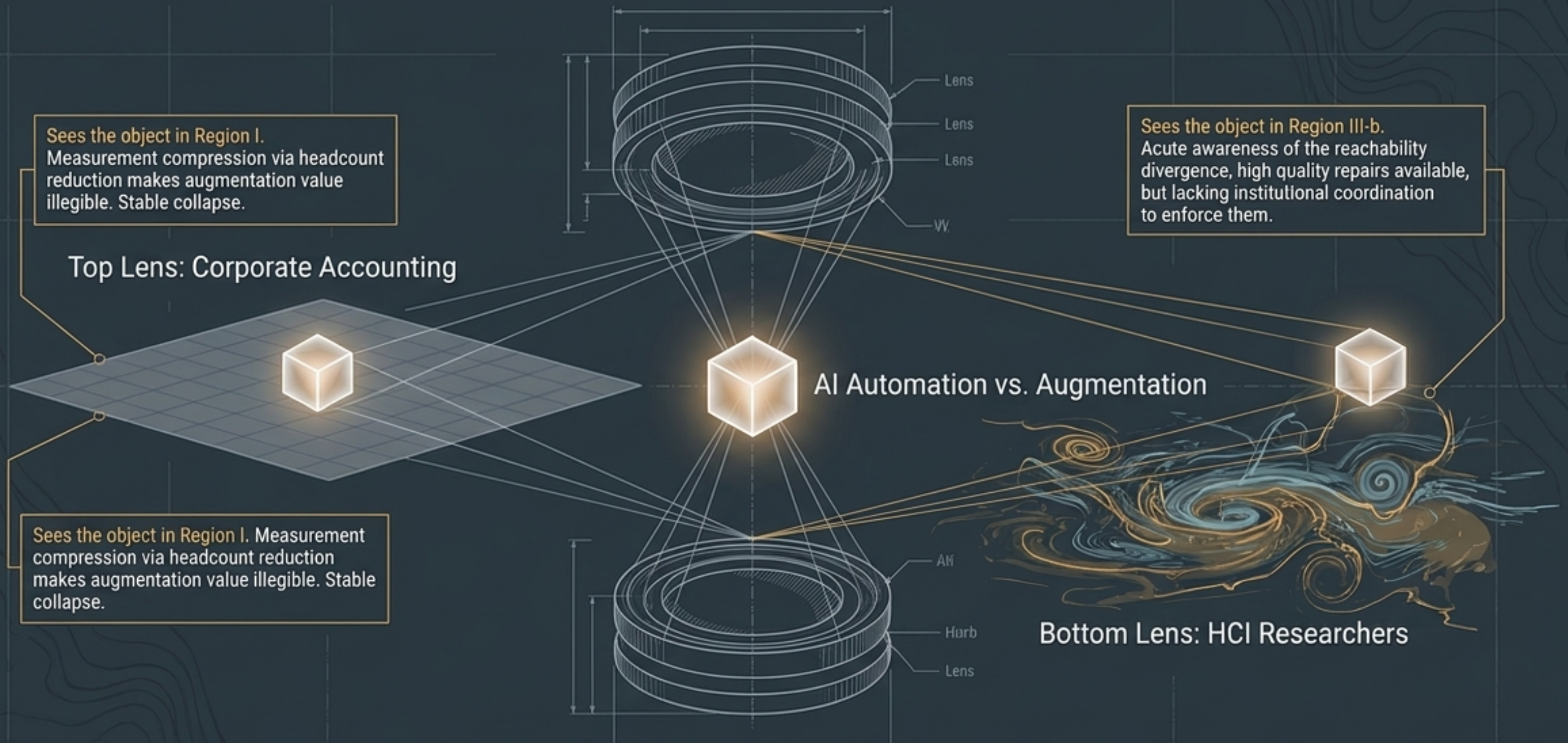
The Parasitic Substitution Trap



Workarounds don't just reduce pressure—they **actively conceal systemic failure**.

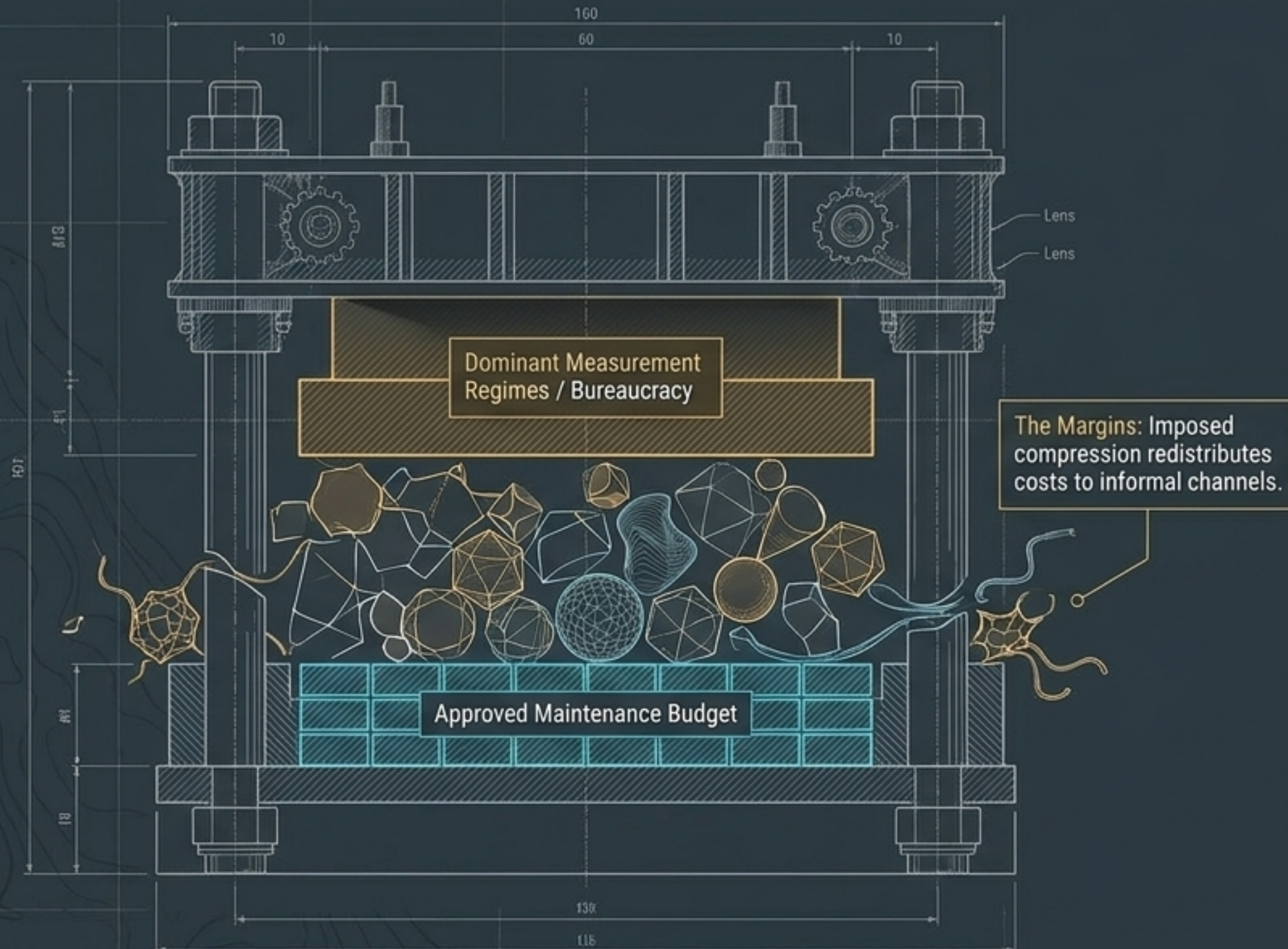
By absorbing the shock, informal patches **permanently trap** institutions in Region I, ensuring the root distinction never restores.

Agent-Relative Trajectories



SYNTHESIS: A distinction does not have a single state. It exists relative to the population indexing it.

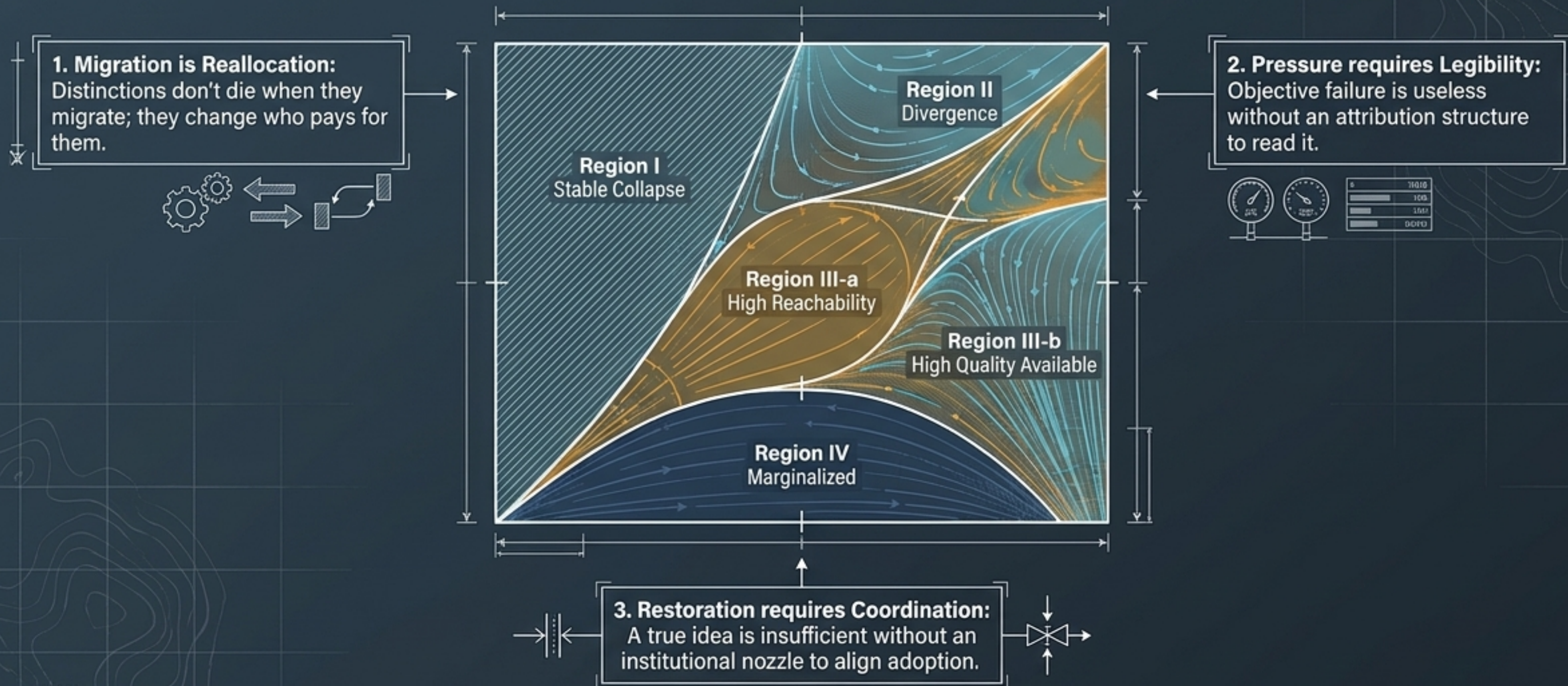
Power is Compression



Every representational system allocates a **finite maintenance budget**.

The ability to **impose a compression scheme on other agents**—deciding what gets merged and what remains distinct—is a primary exercise of institutional power.

A New Lens on Institutional Memory



**Institutions must look past "is this true?" and begin asking:
"Who is paying the maintenance topology for this to exist?"**