

# The Intelligence Capital Manifesto: How Enterprises Can Win in the Intelligence Economy

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## ABSTRACT

This paper develops a unified theoretical and empirical framework for understanding the rise of *Intelligence Capital* as a new dominant factor of production: institutionalized, process-owning human+AI systems that learn, retain memory, and compound in economic value.

We argue that recent macroeconomic anomalies, including sustained output growth with weak employment creation, rising productivity without proportional hiring, and increased capital concentration, reflect a structural transition rather than cyclical fluctuations. Using cross-national labor and productivity data, we document a “labor inversion” in which output increasingly flows through embedded intelligence systems prior to labor-market absorption, generating persistent “phantom jobs.”

At the microeconomic level, we reinterpret the firm as a learning-and-compounding engine rather than a transaction-cost minimizer, modeling enterprises as portfolios of Intelligence Capital Generators that internalize knowledge, capture feedback, and exhibit power-law return dynamics.

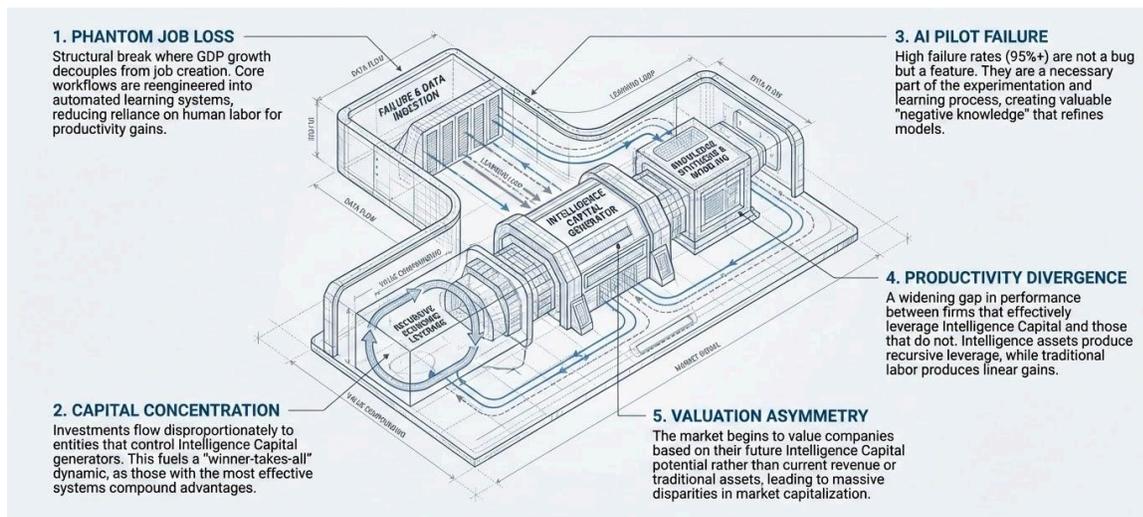
We introduce the Intelligence Capital Yield Function to formalize how exploration, failure, and institutional learning are converted into scalable economic advantage. The analysis shows that high experimental failure rates and valuation asymmetries are endogenous features of Intelligence Capital formation rather than indicators of misallocation.

Finally, we identify organizational and behavioral constraints that limit compounding and propose governance mechanisms that align managerial incentives with long-run learning yield. The findings contribute to theories of the firm, endogenous growth, and technological change by demonstrating how intelligence-based capital reshapes productivity, employment, and competitive dynamics in advanced economies.

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## Executive Summary

The *Intelligence Capital Manifesto* argues that the global economy has entered a structural transition in which economic growth is no longer primarily driven by labor or traditional capital, but by Intelligence Capital: institutionalized, process-owning human–AI systems that learn, retain memory, and compound in value over time. This shift explains a set of contemporary anomalies—including strong GDP growth with weak job creation, rising productivity without proportional hiring, capital concentration, high AI pilot failure rates, and valuation asymmetries—that are often treated as separate phenomena but are, in fact, manifestations of a single underlying transformation.



At the macroeconomic level, the paper documents a “labor inversion” in which output increasingly flows through embedded intelligence systems before reaching labor markets. This produces persistent “phantom jobs”: roles that would historically have been created but are now structurally bypassed. Evidence from the United States and Europe indicates that this decoupling is not cyclical but reflects a durable reorganization of production around cognitive infrastructure rather than human labor.

At the microeconomic level, the manifesto reframes the firm. Departing from the Coasean view of firms as transaction-cost minimizers, it models enterprises as learning-and-compounding engines organized around portfolios of Intelligence Capital Generators. These generators encode workflows, capture feedback, and accumulate institutional knowledge, enabling firms to generate increasing returns through endogenous learning. Competitive advantage arises not from deploying AI tools, but from owning and governing systems that continuously improve their own economics.

The paper introduces the Intelligence Capital Yield Function to formalize how exploration, disciplined failure, and institutional learning are transformed into scalable economic value. Within this framework, high experimental failure rates are interpreted as necessary inputs to capital formation rather than as inefficiencies. Power-law return structures and extreme outcome dispersion are shown to be intrinsic features of Intelligence Capital systems.

Organizational and behavioral constraints are identified as primary barriers to effective Intelligence Capital formation. Loss aversion, endowment effects, and familiarity bias systematically impede transformation. The manifesto proposes a managerial “change stack” based on reversible pilots, status repricing, and embedded human–AI collaboration to overcome these frictions and enable sustained learning velocity.

The analysis further argues that contemporary concerns about AI-driven “bubbles” misunderstand the economics of cognitive capital formation. High capital expenditure, concentrated returns, and valuation asymmetries reflect discovery and scaling processes inherent to new dominant asset classes. Financial markets are increasingly pricing future Intelligence Capital dominance rather than current product revenues, while many traditional enterprises remain undervalued due to unrecognized Intelligence Capital deficits.

Finally, the manifesto situates Intelligence Capital as a new dominant factor of production, comparable in historical importance to land, machinery, and information. In this emerging regime, enterprises and nations compete primarily on their ability to generate, govern, and compound institutional intelligence. The CEO’s central role shifts from overseeing digital transformation to stewarding internal capital markets for learning systems.

The central conclusion is that economic advantage in the coming decades will accrue not to organizations that merely adopt artificial intelligence, but to those that systematically transform intelligence into durable, self-reinforcing capital. Firms and societies that master Intelligence Capital formation will dominate productivity, innovation, and geopolitical influence, while those that do not will become structurally dependent.

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## Thesis

The central conclusion of manifesto is:

**We are not entering an AI economy. We are entering an Intelligence Capital economy.**

In this economy:

- Advantage comes from generating, governing, and compounding institutional intelligence.
  - Tools do not confer durable power; learning systems do.
  - Firms and nations that master Intelligence Capital will dominate.
  - Those that do not will become structurally dependent.
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# The Intelligence Capital Manifesto

## A. Presentation of Arguments

### I. The Structural Break

The global economy has crossed a structural threshold. Output continues to grow, but employment no longer follows. Meanwhile, capital concentrates and returns accelerate.

This is not a recessionary distortion. It is a systemic transition.

For more than half a century, economic growth and labor absorption were tightly coupled. Okun's Law expressed this stability. For every 2% growth in GDP, we would see a 1% decrease in unemployment. That relationship has now inverted. In 2025, the United States and Europe experienced strong GDP growth with near-zero net job creation. Counterfactual labor modeling reveals 28 million "phantom jobs" that historically would have existed but never formed.

The economy is no longer primarily organized around human labor.

It is now organized around **Intelligence Capital**.

*See detailed labor analysis in Part B.*

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## II. Intelligence Capital Defined

**Intelligence Capital** is institutionalized intelligence embedded in enterprise workflows, systems, and decision structures that functions as a compounding economic asset.

It is not talent. It is not data. It is not software.

Intelligence Capital organises around Intelligence Capital Generators, which

- Own processes.
- Retain memory.
- Operate under auditable control (and invite requiring *proof of control*).
- Improve its own economics over time.

When intelligence meets these conditions, it ceases to be a tool and becomes capital.

And this is a really interesting capital asset. For the first time ever, we have a capital asset that *increases* in value when we use it. Previously, when we had an asset (like a piece of heavy equipment that was used to manufacture a widget), as soon as you use it, it starts to experience wear-and-tear, and starts to lose value. We call this *depreciation*. (Or, if it were something intangible, like a patent, we would call this decrease in value *amortisation*).

In Ronald Coase's theory of the firm, expressed in his seminal 1937 paper "The Nature of the Firm", he proposed a comprehensive way of looking at how a company organised its activities and made decisions. Intelligence Capital (IC) theory turns this entirely on its head. At the microeconomic level, **Intelligence Capital (IC) theory** departs from **Ronald Coase's Theory of the Firm** in a fundamental way: it shifts the unit of analysis from **transaction-cost minimization** to **learning-and-compounding optimization**.

Below is the core distinction.

### 1. Coase: The Firm as a Transaction-Cost Minimizer

In "The Nature of the Firm" (1937), Coase explains firm boundaries through **comparative transaction costs**:

A firm internalizes activities when:

$$\text{Cost}(\text{internal coordination}) < \text{Cost}(\text{market contracting})$$

Key microeconomic assumptions:

Dimension	Coasean View
Primary cost	Search, bargaining, monitoring
Role of management	Substitute for markets
Knowledge	Mostly tacit, costly to transmit
Assets	Physical + human
Boundary logic	“Make vs buy”
Optimization target	Minimize coordination costs

Microeconomically, the firm is a **governance structure** that reduces friction. The firm exists to avoid market inefficiency.

## 2. Intelligence Capital: The Firm as a Learning-Compounding Engine

In Intelligence Capital theory, the firm is not primarily a coordination device. It is a **capital formation system for intelligence**.

“The value creation engine for the AI economy is ‘intelligence capital’... Intelligence that owns a process and captures, refines and compounds knowledge and learning”

Inside each Intelligence Capital Generator, there is an **Intelligence Capital Engine** that captures, refines and compounds knowledge.

Microeconomically, the firm is modeled as:

A portfolio of **Intelligence Capital Generators** that:

- Encode workflows
- Capture feedback
- Accumulate learning
- Improve autonomously
- Scale nonlinearly

Key assumptions:

Dimension	Intelligence Capital View
Primary cost	Learning leakage
Role of management	Portfolio governor

Knowledge	Codifiable, accumulative
Assets	Human + AI + workflows
Boundary logic	“Learn vs lose”
Optimization target	Maximize learning yield

The purpose of the firm is to **compound intelligence**.

### 3. Boundary Formation: “Make vs Buy” vs “Learn vs Rent”

The **Coasean Boundary Rule** helps a firm (and a manager) decide the make-vs-buy decision. You internalize when:

$$TC_{\text{market}} > TC_{\text{internal}}$$

Example: Hire engineers if contracting them is expensive.

Whereas the **Intelligence Capital Boundary Rule** says you internalize when:

$$\text{Learning\_capture\_internal} > \text{Learning\_capture\_external}$$

Example: Build internal AI copilots even if vendors are cheaper, because:

- Internal systems retain data
- Improve with use
- Generate proprietary models
- Become capital assets

So the boundary is set by **learning retention**, not transaction cost.

### 4. Treatment of Knowledge

**In Coase** knowledge is:

- Sticky
- Costly
- Difficult to transmit
- Secondary to contracts

Firms economize on knowledge-transfer costs.

**In Intelligence Capital** knowledge is:

- The primary asset
- Endogenously produced
- Automatically stored
- Continuously recombined

“traditional IT depreciates; intelligence capital compounds”

**Knowledge is not a friction. It is the return-generating asset.**

## 5. Production Function: Static vs Dynamic

**Coase (Implicitly)** states of firm production:

$$Y = f(L, K, M)$$

Where coordination reduces waste. Learning is exogenous.

**Intelligence Capital** states that firm production:

$$Y_t = f(L, K, AI, \Sigma \text{Learning}_{t-1})$$

Where past learning raises future productivity.

**Learning is endogenous capital.** This is closer to an internal increasing-returns model than to neoclassical production.

## 6. Failure Economics

Under Coase, failure is a sign of inefficiency. Failed transactions are deadweight loss. When you have a failure, you *write it off*. The concept of writedowns is embedded throughout modern finance and accounting.

Under IC, **failure is asset formation**. This is a provocative idea. “If you’re not ‘failing’ at least 95% of the time, you’re not experimenting enough”.

Thomas Edison famously said, “I didn’t fail 10,000 times. I **discovered** 10,000 ways not to make a light bulb” (emphasis ours). The operant word is “discovered”. Edison was on a knowledge and learning journey. Every time his experiment ‘failed’, he wrote down what he tried, how it didn’t work, and perhaps a hypothesis on why it didn’t work.

Failed experiments generate:

- Training data
- Process refinements

- Model updates
- Organizational learning

They increase future productivity.

In IC, **failure is capitalized**, not written off.

## 7. Managerial Objective Function

In a Coasean Firm, managers optimize:

$$\pi = \text{Revenue} - \text{Production Costs} - \text{Transaction Costs}$$

In an **Intelligence Capital Firm**, managers optimize:

$$\pi_t = \text{Revenue}_t + \Delta(\text{Intelligence Stock}_t)$$

**“The enterprise objective is therefore not AI adoption. It is Intelligence Capital yield”**

Current profit is subordinated to:

- Learning velocity
- Model quality
- Workflow ownership
- Data depth

This is a fundamentally different micro objective.

## 8. Organizational Form: Hierarchy vs Portfolio

Coase proposes that a firm offers a hierarchy to replace markets. The structure of this hierarchical firm minimizes supervision cost.

Intelligence Capital completely reverses this trend and proposes an internal market, and an external market-of-markets. Under Intelligence Capital, the ‘firm’ consists of a portfolio of generators. “A portfolio of Generators constitutes the enterprise’s Intelligence Capital stock”.

Each unit is evaluated by:

- Learning rate
- Scalability
- Reusability
- Spillover value

This resembles venture-capital allocation inside the firm, not classical hierarchy.

**The CEO becomes a portfolio manager of generators.** The coordinating cost of this more complex model is close to nil due to technology.

**The New Culture of the Firm**

There are interesting implications for the culture of the firm and management, which are the subject of a future paper.

To address briefly here: the IC firm teaches a nimble, fluid internal labor-market culture. We have seen this show up in select organisations, where employees bid their time on different projects, but it’s not widespread. Still, there is an extant body of knowledge around these internal labour markets, most famously but not exclusively with the software company Valve. Others who have experimented with aspects of this include Haier, Schneider Electric, and Unilever.

Outcome Category	Impact Observed in Research
Productivity	Unilever unlocked over <b>300,000 hours</b> of productivity by allowing employees to bid on "gigs" outside their core roles. <b>Schneider Electric</b> reduced their "time-to-fill" for projects by <b>40–90 days</b> .
Retention	Research by LinkedIn and SHRM shows that employees in companies with high internal mobility stay <b>2x longer</b> and are <b>3.5x more engaged</b> than those in rigid hierarchies.
Innovation Speed	<b>Haier</b> reduced the distance between R&D and the customer to "zero." Because teams bid on customer needs directly, they eliminated the 6–12 month "approval cycle" common in traditional firms.
Waste Reduction	<b>Valve’s</b> model prevents "promotion-oriented work"—projects created just to make a manager look good. If a project is low-value, employees simply won't "bid" their time onto it, and the project dies naturally.

We conclude that we don’t have to invent a new management science to describe how labor can internally organise around IC, but instead apply and extend lessons learned from decades of experience with internal labour markets.

The ‘center’ of the firm, perhaps thought more as a node in a network or web, stewards a culture of flexibility and innovation. It manages metrics, and evaluates Intelligence Capital Generator performance, determining when an IC Generator needs to be further fueled on success, or terminated on failure (and what the lessons are of failure).

The highest performing IC Generators have a mix of biologic and synthetic intelligences. You don't 'fire' the biologics (people) when you terminate a generator: you re-assign them to a new generator. What we don't know, yet, and need to conduct research around: do you keep the biologic/synthetic pairing for a new generator? Do you assign a new synthetic? What way of capturing and refining knowledge from failure produces the best outcomes?

If 99.97% of generators ideally fail, how do you keep humans motivated? We note the psychology of **intermittent reward**, and the fact that 0.03% odds are substantially better than the typically lottery. Properly positioned, people can understand how not 'winning' one particular round doesn't prohibit the big payoff later.

### 9. Returns Structure

The return profile for Coase is mostly linear. Coordination improves efficiency at the margin. A 5% operational improvement quarter over quarter is considered 'good' under Coase.

Intelligence Capital, however, looks for extreme returns on a power-law curve. Augmentation can lead to 200% to 600% ROI. Symbiotic or additional intelligence can generate a 2000% to 5000% ROI.

Microeconomically:

- A few generators dominate value
- Most fail
- Scale effects dominate

**This is incompatible with Coase's equilibrium framework.**

### 10. The Microeconomic Shift

At the micro level, Coase explains why firms exist instead of markets. Coase models the firm as a **cost-minimizing institution**.

Intelligence Capital, on the other hand, explains why some firms become self-reinforcing intelligence monopolies. Intelligence Capital models the firm as a **learning-maximizing capital engine**.

Dimension	Coase	Intelligence Capital
Firm purpose	Reduce transaction costs	Compound intelligence
Boundary logic	Make vs buy	Learn vs lose
Knowledge	Friction	Asset

Failure	Waste	Investment
Management	Coordination	Portfolio governance
Returns	Linear	Power-law
Core constraint	Contracting cost	Learning capture
Dominant asset	Labor & capital	Symbiotic intelligence

**Coase treats firms as devices for minimizing coordination friction; Intelligence Capital treats firms as devices for maximizing cumulative learning.**

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### III. The New Factor of Production

Every economic era is defined by its dominant factor of production:

- Land defined agrarian power.
- Machinery defined industrial power.
- Information defined digital power.
- **Intelligence Capital now defines economic power.**

Enterprises no longer need proportional increases in labor to increase output. They need Intelligence Capital.

This is why growth continues while hiring stalls. This is why productivity rises without workforce expansion. This is why capital concentrates around cognitive infrastructure.

The economy has become cognitive, not 'automated'. Automation would produce at-best Coasian returns. The kinds of exponential returns we are seeing emerge, in some firms, are due to Intelligence Capital. The fact that other firms are only getting 12% to 25% productivity gains is because they are clinging to replacement economics.

Rip-and-replace is easy, fast, and emulates past practice like outsourcing so doesn't take much work to explain to the boss. Redesigning your entire organizational structure and model, and completely

reorienting your people about it in the process, is expensive, perceptually risky and requires trying something new and therefore uncomfortable. It also delivers a 2000%+ ROI.

To win the Golden Fleece of 100X better, you have to battle through the **Three-Headed Hydra of Corporate Stasis**: loss aversion, the endowment effect and the mere exposure principle.

People cling to these 3 cognitive biases:

- **Loss aversion**: “to do this new thing, I will lose the thing I have - my current job and way of working - to try the new job and way of working”
- **Endowment effect**: “I overvalue this thing I have, my current job and way of working, versus some new thing”
- **Mere exposure principle**: “I am comfortable with things thing I see and do every day, my current job and way of working, and because I see it every day, I like it”

What you propose when you say “learn symbiosis with the machine and become a partner in an Intelligence Capital Generator”, is you are saying “give up that thing you like, which you place excessive value into, and which you really really like it, in exchange for this new thing that sounds risky and weird.”

## Playbook for Change

**Managers must (1) de-risk change through reversible pilots, (2) reprice status so AI-native roles dominate advancement, and (3) embed human–AI symbiosis into daily workflows. Together, these neutralize loss aversion, endowment bias, and familiarity bias—unlocking Intelligence Capital compounding rather than incremental automation gains.**

Here are **three concrete, manager-level interventions** that reliably overcome loss aversion, endowment bias, and mere exposure—and move teams from “replacement economics” to Intelligence Capital formation.

### 1. Convert Abstract Risk into Reversible Experiments

**Problem addressed:** Loss aversion (“I might lose what I have.”)

People don’t resist change; they resist **irreversibility**. So the first managerial move is to **make transformation feel reversible**.

#### What to do

Create formally protected “symbiosis pilots” with:

- Time limits (90–180 days)
- Job security guarantees
- Explicit rollback rights

- Isolated KPIs

Example:

“For 120 days, this unit will operate as an AI-native team. No role eliminations. If it fails, we revert.”

### **Why it works**

Psychologically, this reframes:

- From: *existential threat*
- To: *option with upside*

Loss aversion collapses when downside is capped.

### **Operational rule**

No pilot = no belief change. Narratives don't beat incentives. Safe trials do.

## **2. Reprice Status: Make the “New Way” the Highest-Prestige Path**

**Problem addressed:** Endowment effect (“My current role is valuable.”)

People don't cling to workflows. They cling to **status, identity, and signaling value**. You must **revalue the future role above the current one**.

### **What to do**

Redesign recognition systems so that:

- AI-native teams get first access to:
  - Promotions
  - High-visibility projects
  - External exposure
  - Compensation upside
- Legacy roles quietly lose prestige

Example:

“All strategic initiatives now require Intelligence Capital certification.”

### **Why it works**

Humans optimize for social ranking before efficiency. If “old way” = declining prestige, behavior shifts fast.

### **Operational rule**

If AI-native roles don’t lead to power and advancement, adoption will stall.

### **3. Industrialize Learning: Make Symbiosis the Daily Default**

**Problem addressed:** Mere exposure (“I like what I see every day.”)

You cannot argue people out of familiarity. You must **out-expose** it. The third move is: **engineer constant contact with the new mode.**

### **What to do**

Embed AI–human symbiosis into daily routines:

- Default AI copilots in workflows
- Mandatory co-design sessions
- Shared dashboards showing IC output
- Weekly “augmentation reviews”

Example:

Every proposal must show:

Human input → AI synthesis → Human judgment → System learning

### **Why it works**

After ~60–90 days of exposure:

- “Weird” becomes “normal”
- “Risky” becomes “how we work”

Preference follows familiarity.

### **Operational rule**

If AI-symbiosis isn’t used daily, it won’t be trusted strategically.

### **The Integrated Change Stack**

The three steps work because they align with human cognitive architecture:

<b>Bias</b>	<b>Managerial Countermeasure</b>	<b>Mechanism</b>
Loss Aversion	Reversible pilots	Limits downside
Endowment Effect	Status repricing	Revalues identity
Mere Exposure	Workflow embedding	Normalizes behavior

Adopt all three or expect failure. Partial adoption produces “the 12–25% trap.”

### **How This Produces 100X Outcomes**

When executed together, this stack does something subtle:

It shifts employees from:

“Protect my job”

to

“Invest in my Intelligence Capital.”

At that point:

- People redesign their own workflows
- Learning compounds
- Process innovation accelerates
- Organizational memory improves
- Coordination costs collapse

That’s when you move from:

Automation ROI → Productivity bump

to

Cognitive ROI → Exponential scaling

**Unlocking symbiotic intelligence doesn’t require a miracle, a magic wand or a magician. It requires management to execute process, enlisting labour in positive transformation on the path to creating resource abundance.**

#### IV. The Intelligence Capital Labor Inversion

Labor has not disappeared. It has been bypassed. Growth now flows through Intelligence Capital before it ever reaches labor markets. Jobs are no longer destroyed at scale. They are simply never created. This is the **Intelligence Capital Labor Inversion**.

Historically:

Growth → Hiring → Output

Now:

Growth → Intelligence Capital → Output

Labor is no longer the marginal growth conduit. Intelligence Capital is. This is why Okun’s Law has inverted (why we have a negative Okun coefficient). This is why job creation has decoupled from GDP. This is why employment statistics understate structural displacement.

It is a hidden effect and subject to some debate. We conduct a more in-depth analysis in Appendix A (U.S. market) and Appendix B (European market). Briefly in summary here: there not only were 28 million “phantom jobs” last year in the US and Europe, but we project a “widening scissors” over the next 10 years that, in the most aggressive projection, results in widespread societal upheaval in multiple OECD economies simultaneously. See below for our political analysis linking the extensive jobs deficit in the youth educated class with social unrest.

**Okun's Law** (Arthur Okun, 1962)

Describes an inverse relationship between GDP (productivity) and labor market participation

$$\frac{\bar{Y} - Y}{\bar{Y}} = c(u - \bar{u})$$

$\bar{Y}$  = potential GDP

$Y$  = actual output

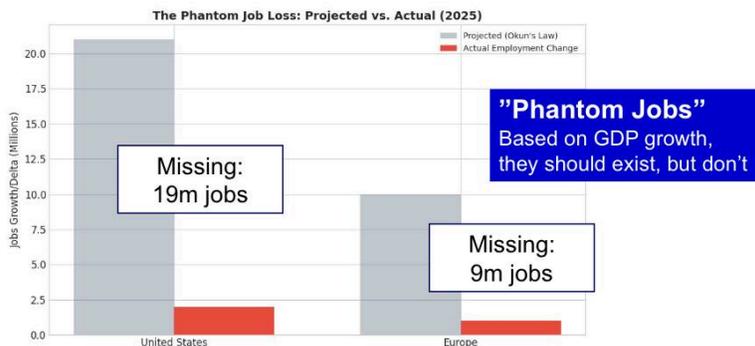
$c$  = factor relating changes in unemployment to changes in output

$u$  = actual unemployment rate

$\bar{u}$  = natural rate of unemployment

Source: Wikipedia

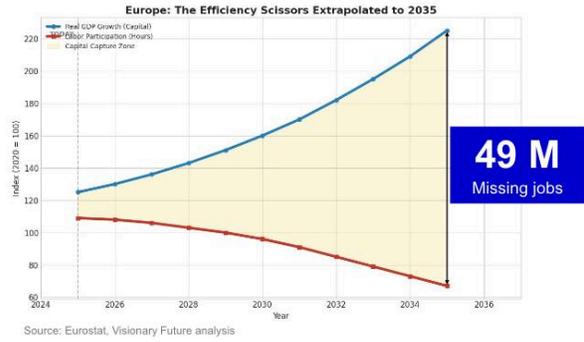
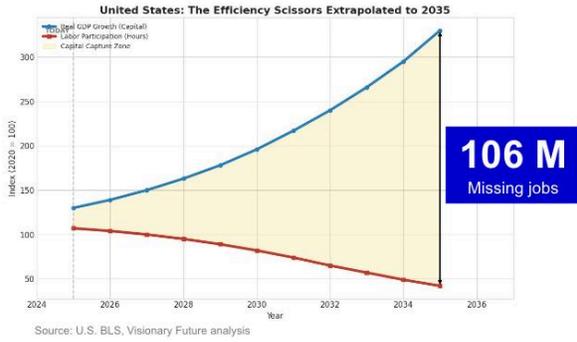
**For every 2% increase in GDP, there is a 1% decrease in unemployment...normally**



**“Phantom Jobs”**  
Based on GDP growth, they should exist, but don't

Source: US BLS, Eurostat, Visionary Future analysis  
Okun Law contrafactual

**Europe ~50% less impacted than US... but still a positive Okun coefficient!**



**Quantitative Breakdown of the 19.0M U.S. Job Gap (2025)**

Factor	Estimated Impact (Jobs)	% of Total Gap	Primary Driver
Public Sector Losses	~277,000	1.5%	Federal workforce reductions and deferred resignations.
Post-Pandemic Correction	~1,800,000	9.5%	"Payback" for excessive over-hiring in 2021–2022.
AI-Driven/Structural	~16,923,000	89.0%	The "Efficiency Scissors": Output growth decoupled from labor.

Source: U.S. BLS, Visionary Future analysis

To derive these figures, the analysis utilizes a **synthesis model** that contrasts historical labor absorption with 2025 realized data:

- The Counterfactual Baseline:** We apply a historical **Okun Coefficient of -0.5** (where a 2% GDP increase traditionally creates a 1% drop in unemployment) to the 2025 GDP growth rate. This establishes that the U.S. *should* have seen 19 million more jobs than currently exist.
- Isolating Public Sector Volatility:** Using **Bureau of Labor Statistics (BLS)** data from December 2025, we identify a specific loss of **277,000 federal jobs** (a 9.2% decline since January 2025), largely attributed to administrative efforts to reduce the civil service.
- Adjusting for Cyclical "Payback":** The "Over-hiring Correction" is quantified by measuring the degree to which tech and corporate employment has fallen back to pre-pandemic linear trends. While **Oxford Economics** suggests these economic pressures dominate announced layoffs, they only account for a minority of the *uncreated* jobs in the total 19M gap.
- Calculating the AI Residual:** The remaining **~16.9M jobs** represent the structural inversion. This is where GDP continues to rise while job creation remains near-zero—a phenomenon the article defines as a **"fundamental structural break"** caused by the reengineering of core workflows into automated learning systems.

**Quantitative Breakdown of the 9.0M European Job Gap (2025)**

Factor	Estimated Impact (Jobs)	% of Total Gap	Primary Driver
Cyclical & Other Masked Factors	~855,000	9.5%	Correction for excessive hiring during 2021–2022 and sector-specific shifts.
AI-Driven/Structural Decoupling	~8,145,000	90.5%	The "Efficiency Scissors": Out growth continuing while labor participation declines.

Source: Eurostat, Visionary Future analysis

The analysis for Europe utilizes a **Counterfactual Okun's Law Model** to identify the divergence between econor growth and labor absorption:

- Counterfactual Baseline:** The model applies a historical **Okun Coefficient**—the ratio where a specific percentage of GDP growth typically generates a corresponding decrease in unemployment—to the 2024–2025 European growth rates.
- The Inversion Metric:** In 2025, the relationship in Europe became "inverted," representing a fundamental structural break where robust GDP growth was observed alongside near-zero job growth.
- The Efficiency Scissors:** By extrapolating this chasm to 2035, the model projects that the "Efficiency Chasm" for Europe will reach **48.9 million missing jobs** as capital capture replaces labor participation.

## V. The Intelligence Capital Mispricing Argument

AI is widely described as a speculative bubble because of:

- High failure rates
- Heavy capital expenditure
- Concentrated returns
- Valuation asymmetry



These are not bubble signals. They are Intelligence Capital discovery signals. Our current finance and economic tools are inadequate to characterizing these phenomena, therefore it is ascribing falsehood or insufficient value to what is in fact a successful set of outcomes.

Every transition that produces a new dominant capital class requires massive experimentation. Failure is the cost of discovering scalable capital architectures.

A 95% failure rate is not destruction. It is capital formation. 99.97% would produce even more innovation, according to the literature (see our paper “Optimizing Innovation Failure Rates and Intelligence: Why 95% Failure Isn’t Failing Enough” (2026) which argues for even more experimentation and higher failure).

What appears to be excessive AI spending is in fact a global Intelligence Capital land grab. Markets are not pricing tools. They are pricing future Intelligence Capital dominance. The real mispricing is not in AI valuations. It is in the enterprises that are not priced at all for their Intelligence Capital deficit.

## **VI. Intelligence Capital Economics**

Traditional IT depreciates. Intelligence Capital compounds. When you replace a human process with a synthetic process, you get either no or linear productivity gains. When you have an intelligence that owns a process and integrates humans and synthetic in a coequal relationship, you produce recursive economic leverage.

The enterprise objective **Intelligence Capital yield**, the rate at which AI investment is converted into durable, process-owning intelligence, rather than AI adoption.

Enterprises move through three economic states:

1. AI as expense
2. Intelligence Capital formation
3. Intelligence Capital compounding

Most organizations remain in the first state while believing they are in the second.

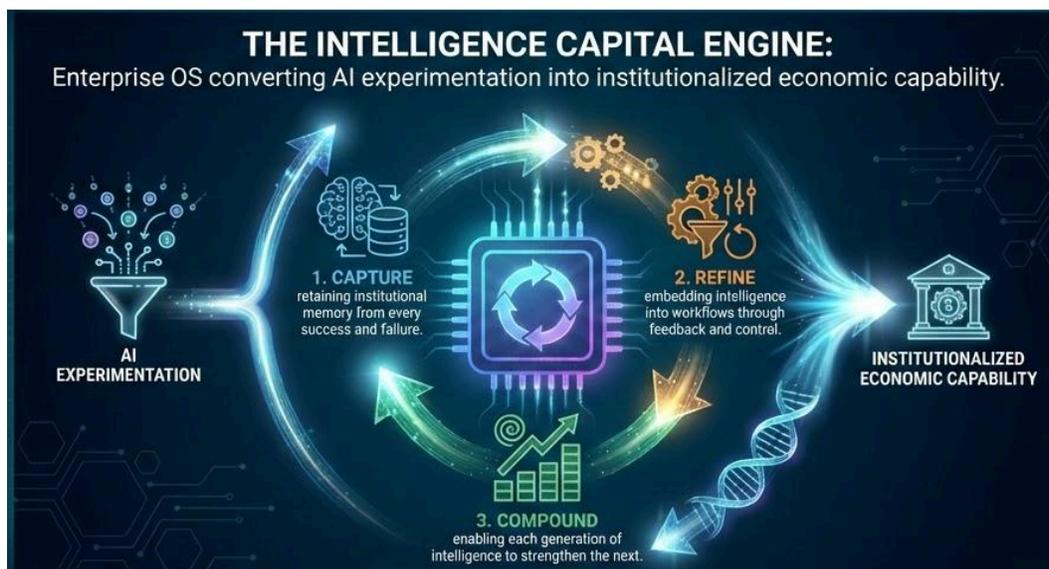
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## VII. The Intelligence Capital Engine

Intelligence Capital does not emerge organically. It must be engineered. The **Intelligence Capital Engine** is the enterprise operating system that converts AI experimentation into institutionalized economic capability.

It performs three functions:

- **Capture** — retaining institutional memory from every success and failure.
- **Refine** — embedding intelligence into workflows through feedback and control.
- **Compound** — enabling each generation of intelligence to strengthen the next.

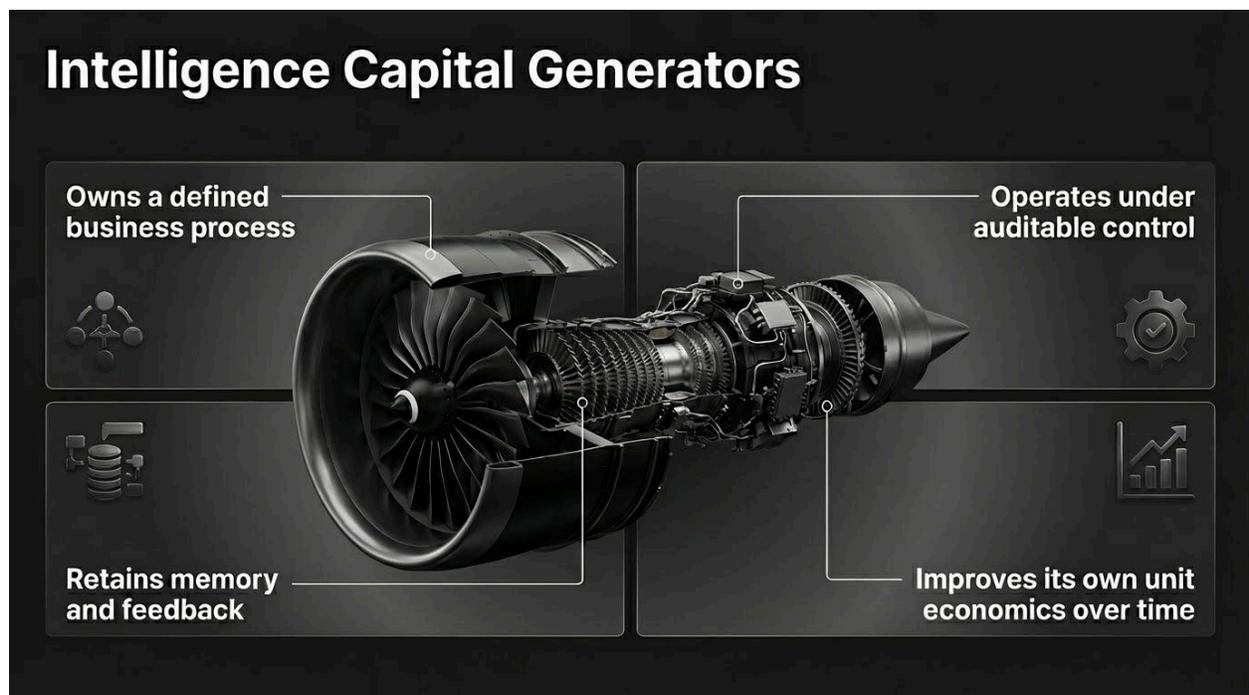


Without an Intelligence Capital Engine, AI remains episodic. With it, intelligence is converted into permanent capital.

## VIII. Intelligence Capital Generators

Value is produced by **Intelligence Capital Generators** which house these Engines. An Intelligence Capital Generator is an AI system that:

- Owns a defined business process.
- Retains memory and feedback.
- Operates under auditable control.
- Improves its own unit economics over time.



These are not pilots. They are not tools. They are process-owning intelligence assets. **A portfolio of Generators constitutes the enterprise's Intelligence Capital stock.**

**IX. Portfolio Doctrine**

Intelligence Capital must be governed as a portfolio of Intelligence Capital Generators. Most Generators will fail, but a few will dominate returns, and the winners will more than repay the cost of the losers.

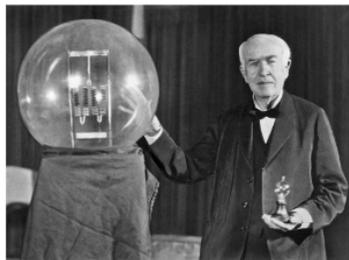
This is not inefficiency. It is the economic signature of every dominant capital transition. Enterprises that understand this move from pilot theater to Intelligence Capital economics.

The "Universal Success Curve" suggests that the attrition rate from a raw idea to a commercial success is nearly total (over 99%). Stevens & Burley (1997) is the definitive work.

**Top of Funnel Innovation Failure Rates**

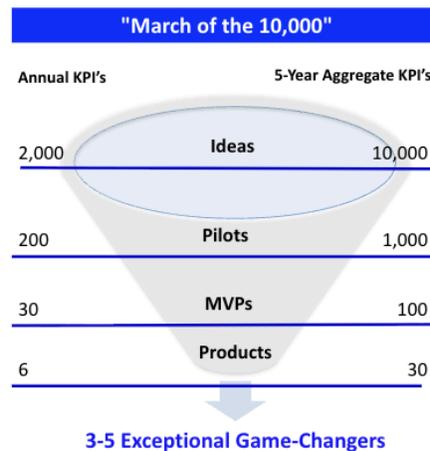
Stage of Innovation	Survival Rate	Failure (Attrition) Rate	Source / Study
Raw Idea to Success	0.03%	99.97%	Stevens & Burley (1997)
Venture Capital Screening	0.5% – 2%	98% – 99.5%	HBR (2023/24)
Concept to Prototype	25%	75%	Rahul Goyal (2025)

Application of this to an innovation funnel suggests that we will have a portfolio of many experiments (Intelligence Capital Generators), most of which statistically will fail.

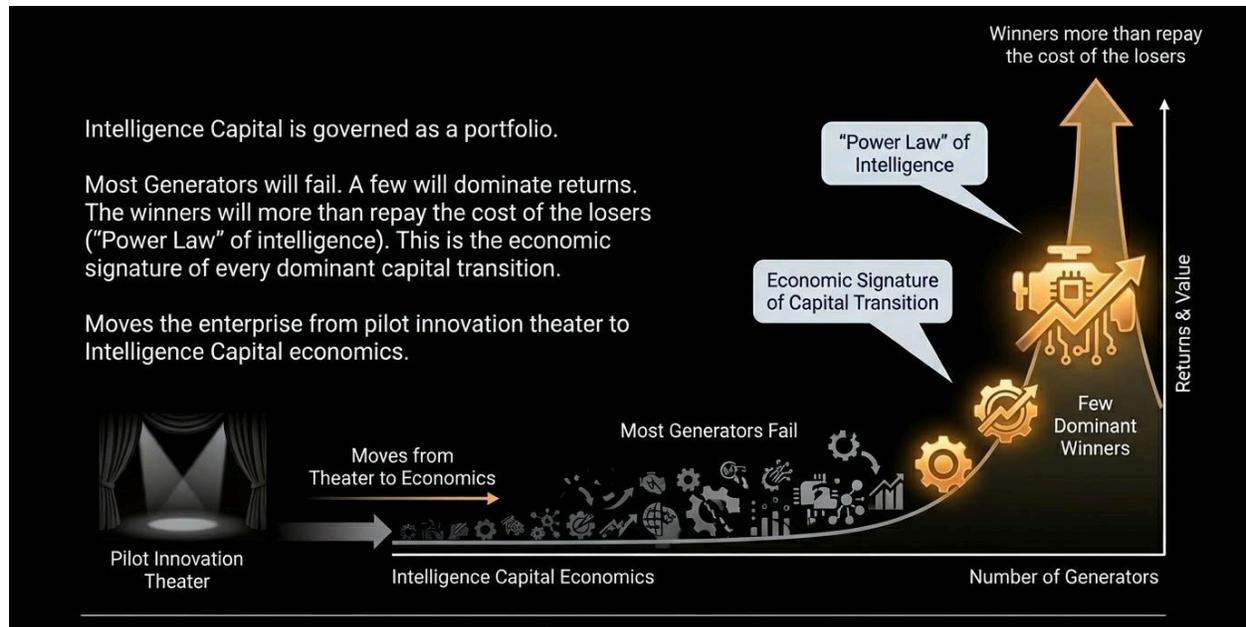


I didn't fail 10,000 times.  
I discovered 10,000 ways  
not to make a light bulb

Thomas A. Edison



The power law returns distribution, however, says that the tiny fraction of IC Generators that succeed will create exponential value creation across the overall portfolio.



Below is a **table** showing the **main peer-reviewed empirical papers in the Gompers–Lerner tradition** that contain **quantitative evidence on venture outcomes**, together with what each implies about **“survival” or “success”** in practice. It is important to note that none of these papers use a unified definition of “survival.” Outcomes are proxied by **IPO, acquisition, capital returned, continuation, or fund-level performance**. So this is a *comparative evidence table*, not a formal meta-analysis.

### Empirical Evidence on VC-Backed Firm Survival & Success

Study	Sample (N)	Period	Unit	Outcome Metric	Implied “Survival / Success	Interpretation
Gompers (1995)	794 firms; 2,143 rounds	~1970s–1990	Firms / rounds	Continuation vs termination across rounds	~40%–50% discontinued before late-stage	Roughly half of VC-backed firms fail before maturity
Gompers (1996)	433 IPOs	1972–1992	IPO firms	IPO timing & underpricing	IPOs represent a small minority of VC-backed firms	IPO is rare outcome (<20% implied)
Lerner (1994)	350+ VC-backed firms	1978–1989	Firms	IPO vs private/acquired	~15% reach IPO	IPO-level “success” is uncommon
Gompers & Lerner (2000)	>4,000 investments	1987–1995	Deals	Valuation vs outcomes	High attrition in “hot” periods	Many funded firms fail to justify valuations
Kaplan & Schoar (2005)	746 VC funds	1980–2001	Funds	IRR / PME	<25% of funds beat public markets	Majority of VC portfolios underperform
Hall & Woodward (2010)	~22,000 startups	1987–2008	Firms	Exit outcomes	~25% positive exit; ~75% zero/modest	Strong evidence of power-law survival
Puri & Zarutskie (2012)	>200,000 firms	1981–2005	Firms	Survival vs failure	VC-backed firms fail less often but are fewer	VC selects for higher survival, but failures remain large

If we integrate the literature conservatively:

Outcome Category	Evidence-Based Range
Early termination	~40%–50%
No meaningful exit	~60%–70%
Positive exit (any)	~20%–30%
IPO-level success	~10%–15%
Outlier winners	~3%–7%

This is the closest thing to a **cross-study “net survival rate”** supported by the academic record.

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Across multiple large-scale studies covering tens of thousands of firms and investments, only about **20–30% of VC-backed ventures achieve a meaningful positive exit**, with **IPO-level success limited to roughly 10–15%**, and **outlier returns concentrated in fewer than 5% of firms**.

---

### Translating Venture Capital Learnings to Intelligence Capital Generators

If we take this data and apply it to the Intelligence Capital framework, we see a **direct structural mapping** between the empirical venture-capital evidence and your **Intelligence Capital (IC) Generator / Engine** framework, showing why **extreme failure rates are not an anomaly but a necessary operating condition** of cognitive/knowledge-intensive capital systems.

### Intelligence Capital and Venture Failure:

#### Why 70–80% Attrition Is a Feature, Not a Bug

##### 1. Empirical Baseline (From the VC Literature)

Across large datasets (Gompers, Lerner, Kaplan, Hall, Puri):

<b>Outcome</b>	<b>Typical Rate</b>
Early termination	40–50%
No meaningful exit	60–70%
Positive exit	20–30%
IPO / dominant winner	10–15%
System-defining outliers	3–7%

This pattern is stable over five decades, multiple countries, and different technology waves.

It is **structural**, not cyclical.

## **2. Why This Pattern Emerges in Intelligence Capital Systems**

### **A. Intelligence Capital Is Non-Linear**

Traditional capital:

Input → Output → Marginal Return

Intelligence Capital:

Input → Exploration → Learning → Network Effects → Optionality → Discontinuous Returns

Most experiments **cannot** mature into scalable knowledge assets.

So attrition is inevitable.

Formally:

IC generation follows a power-law / Pareto / extreme-value distribution.

This is what VC empirics are measuring.

### **B. Most “Projects” Are Really Probes**

In IC systems, most ventures are not “firms.”

They are:

- Hypothesis tests
- Learning instruments
- Data generators
- Capability probes
- Market-sensing devices

Their economic function is *information production*, not survival.

Failure = signal extraction.

Hence:

High death rate = high epistemic throughput.

### **C. Selection Pressure Creates Capital Efficiency**

VC staging (Gompers 1995) mirrors IC governance:

<b>Stage</b>	<b>IC Function</b>	<b>VC Analogue</b>
Ideation	Hypothesis space	Angel/pre-seed
Validation	Signal filtering	Seed/Series A
Scaling	Capitalization	Growth/IPO

At each gate:

- Cognitive entropy is reduced
- Capital is concentrated
- Knowledge density rises

Attrition is how this filtering happens.

### **3. Intelligence Capital Generators: Portfolio Logic**

Your IC Generators (labs, platforms, ecosystems, venture studios) behave like evolutionary systems.

They operate on:

Many low-cost mutations → ruthless selection → rare dominance

Mathematically, if you want:

- 1 system-level winner

You need:

- 20–30 partial successes
- 70+ failures
- Hundreds of probes

This matches the VC data.

#### 4. Why “Low Failure” Means Low Intelligence Capital

**Organizations boasting “90% AI success rates” are not high-performing.**

They are:

- Under-exploring
- Over-optimizing
- Path-dependent
- Risk-averse
- Learning-poor

They are running **replacement economics**, not IC economics.

Empirically:

Low failure → Low variance → No outliers → No compounding.

#### 5. Intelligence Capital Engines: Where Value Accumulates

Failure happens upstream. Value compounds downstream. In IC Engines (platforms, networks, data moats, institutional memory):

Component	Function
Failed ventures	Training data
Abandoned products	Design memory
Exited founders	Talent pool
Dead models	Architecture evolution

So “failed” ventures are absorbed into the Engine. They are not wasted. They are metabolized.

#### 6. System-Level Economics: Why This Produces 100× Returns

Because IC returns obey:

$$E(\text{Return}) = \text{Small } N \times \text{Huge Impact}$$

If:

- 95% fail
- 4% succeed
- 1% dominates

Then, dominant node captures:

- Network rents
- Standards rents
- Data rents
- Coordination rents
- Institutional rents

This is why Google, Visa, OpenAI-scale platforms emerge.

## 7. Mapping to Your Intelligence Capital Architecture

### A. Generator Layer

Function	Empirical VC Parallel
Exploration	Angel/Seed
Hypothesis testing	Early rounds
Rapid termination	Write-offs
Knowledge capture	Post-mortems

Failure rate: 70%+ = necessary.

### B. Engine Layer

Function	Empirical Parallel
Scaling	Late-stage VC
Lock-in	IPO
Institutionalization	Platform dominance
Rent extraction	Market power

Survival rate: 5–10%. But compounding is extreme.

## 8. Policy Implication: Why Governments Misread Innovation

Most governments try to:

Maximize “project success rate.”

Which destroys IC generation.

Optimal policy is:

Maximize learning velocity.

Which implies tolerating failure. VC markets accidentally discovered this. IC theory explains it.

## 9. Strategic Implication for Enterprises

For boards and CFOs:

Metric	Replacement Econ	IC Econ
KPI	ROI	Learning rate
Target	80% success	70% failure
Risk	Minimize	Optimize
Value	Efficiency	Optionality

Our framework formalizes this shift.

## 10. Synthesis: The Intelligence Capital Law of Attrition

From VC evidence + IC theory:

Any system generating scalable cognitive capital must sacrifice most experiments.

Formally:

$IC\ Yield \approx f(\text{Exploration Intensity} \times \text{Failure Tolerance} \times \text{Knowledge Retention})$

Where:

- Exploration  $\uparrow$   $\rightarrow$  Failure  $\uparrow$   $\rightarrow$  Returns  $\uparrow$
- Suppression of failure  $\rightarrow$  collapse of IC

Fifty years of venture-capital evidence show that only about 20–30% of ventures achieve meaningful success and fewer than 10% become system-defining winners. Intelligence Capital theory explains why: most ventures function as learning instruments rather than durable firms.

**High attrition is not inefficiency—it is the mechanism through which cognitive capital is generated, filtered, and concentrated into scalable engines of value. Entrepreneurial theorist Steve Blank famously said that startups are ‘search engines for business models’. Intelligence Capital is the ultimate realisation of this idea.**

Below is a **formal Intelligence Capital Yield Function (ICYF)**. It is written in the style of an applied economic production function, grounded in the VC/innovation literature, but extending it into our Intelligence Capital framework.

### The Intelligence Capital Yield Function (ICYF)

#### 1. Purpose

The Intelligence Capital Yield Function formalizes how **exploratory activity, failure, and institutional learning** are transformed into **scalable cognitive-economic assets**.

It explains why high failure rates are structurally necessary for high-value outcomes in knowledge-intensive systems.

#### 2. Core Definition

Let:

$IC_t$  = Stock of Intelligence Capital at time  $t$

$Y_t$  = Economic yield generated from  $IC_t$

Then:

$$Y_t = \Phi(IC_t)$$

where:

$$IC_t = \int_0^t G_s \cdot \lambda_s \cdot \theta_s \cdot \kappa_s ds$$

and

$$G_s = E_s \cdot F_s \cdot L_s$$

### 3. Generator Function (Knowledge Production)

#### 3.1 Intelligence Capital Generation

$$G_s = E_s \times F_s \times L_s$$

Where:

Variable	Definition
$E_s$	Exploration intensity (number, diversity, and novelty of experiments)
$F_s$	Failure rate (proportion of terminated probes)
$L_s$	Learning capture coefficient (fraction of failed/successful probes converted into reusable knowledge)

Interpretation:

Intelligence Capital is produced by **exploration multiplied by disciplined failure and institutionalized learning.**

If any term  $\rightarrow 0$ , generation collapses.

#### 3.2 Failure as Productive Input

Unlike classical production:

$$\frac{\partial IC}{\partial F} > 0 \quad \text{for } F \in (F_{min}, F_{opt})$$

Up to an optimal threshold:

$$F_{opt} \approx 0.6 - 0.8$$

Empirically consistent with VC data.

Beyond this:

$$\frac{\partial IC}{\partial F} < 0$$

Chaos dominates.

#### 4. Conversion Function (Selection & Amplification)

Not all generated IC compounds.

Define:

$\lambda_s$  = Selection efficiency

$\theta_s$  = Scalability factor

$\kappa_s$  = Institutional retention rate

So:

$$IC_t = \int_0^t E_s F_s L_s \lambda_s \theta_s \kappa_s ds$$

##### 4.1 Selection Efficiency ( $\lambda$ )

Measures ability to identify high-potential signals:

$$\lambda = \frac{\text{High-value signals selected}}{\text{Total signals produced}}$$

Low  $\lambda$  → wasted experimentation.

High  $\lambda$  → capital concentration.

##### 4.2 Scalability Factor ( $\theta$ )

Measures how well insights can be industrialized:

$$\theta = \frac{\text{Addressable market} \times \text{Network effects}}{\text{Coordination cost}}$$

Without  $\theta$ , IC remains local.

##### 4.3 Institutional Retention ( $\kappa$ )

Measures memory:

$$\kappa = \frac{\text{Knowledge retained}}{\text{Knowledge generated}}$$

Low  $\kappa$  = repeated failure.

High  $\kappa$  = compounding.

## 5. Yield Function (Economic Conversion)

Economic output:

$$Y_t = A \cdot IC_t^\beta$$

Where:

Parameter	Meaning
A	Market/institutional environment
$\beta$	Nonlinearity exponent ( $\beta > 1$ )

Empirically:

$$\beta \approx 1.3 - 2.5$$

→ Superlinear returns.

## 6. Full System Representation

Putting together:

$$Y_t = A \left( \int_0^t E_s F_s L_s \lambda_s \theta_s \kappa_s ds \right)^\beta$$

This is the **Intelligence Capital Yield Function**.

## 7. Comparative Statics

### 7.1 Why “Efficiency” Kills IC

Traditional firms optimize:

$$\min(F), \min(E)$$

So:

$$IC \rightarrow 0$$

→ No breakthrough.

### 7.2 Why Venture Ecosystems Win

VC systems maximize:

$$E \uparrow, F \uparrow, L \uparrow$$

with moderate  $\lambda, \theta, \kappa$ .

→ High IC.

### 7.3 Why Platforms Dominate

Platforms maximize:

$$\theta, \kappa$$

→ Exponential yield.

## 8. Regimes of Intelligence Capital Production

Regime	E	F	L	$\lambda$	$\theta$	$\kappa$	Outcome
Bureaucracy	Low	Low	Low	Low	Low	Low	Stagnation
Startup Hub	High	High	Medium	Medium	Medium	Low	Volatility
Big Tech Platform	Medium	Medium	High	High	High	High	Dominance
IC-Optimized	High	Optimal	High	High	High	High	Compounding

## 9. Measurement Proxies (Operationalization)

Variable	Proxy
E	Experiments/year, pilots, patents
F	Termination rate
L	Post-mortem integration score
$\lambda$	Promotion rate of pilots

$\theta$	API usage, platform adoption
$\kappa$	Knowledge reuse metrics
$Y$	Market cap, productivity

## 10. Policy & Governance Implications

### Governments

Maximize:

$$E \cdot L \cdot \kappa$$

Not "success rate."

### Corporations

Target:

$$F \approx 0.65$$

in innovation portfolios.

### Investors

Optimize:

$$\lambda \cdot \theta$$

More than deal count.

## 11. Testable Hypotheses

H1: Organizations with ( $F \in [0.6, 0.8]$ ) have higher long-run ( $Y$ ).

H2:  $\kappa$  mediates persistence of advantage.

H3:  $\beta > 1$  only when  $\theta > \theta^*$ .

H4: IC depreciation accelerates when  $\kappa < \kappa_{\min}$ .

## 12. Executive Summary: Intelligence Capital Generator Yield Formula (ICGYF)

$$Y = A \left( \int E \times F \times L \times \lambda \times \theta \times \kappa dt \right)^\beta$$

Value = (Exploration × Failure × Learning × Selection × Scale × Memory) ^ Power



In the Intelligence Capital Yield Function, “**power**” refers to the **exponent  $\beta$**  in the yield equation:

$$Y = A \cdot (IC)^\beta$$

It is the parameter that determines **how strongly Intelligence Capital compounds into economic value**.

### 1. Formal Meaning

In standard production economics:

- If  $\beta = 1$  → linear returns
- If  $\beta < 1$  → diminishing returns
- If  $\beta > 1$  → increasing (superlinear) returns

In our framework:

**$\beta$  measures the degree of cognitive–network amplification in the system.**

It tells us whether accumulated intelligence merely adds value—or **multiplies it**.

## 2. Economic Interpretation in Intelligence Capital Terms

For Intelligence Capital systems:

**$\beta$  captures five structural forces:**

$$\beta = f(N, D, S, R, I)$$

Where:

Factor	Meaning	Example
N	Network effects	Platform ecosystems
D	Data feedback loops	ML model retraining
S	Standards dominance	Visa, TCP/IP
R	Reputation/Trust	Academic brands, certification
I	Institutional embedding	Regulation, procurement

These create **nonlinear reinforcement**.

## 3. Intuition: What $\beta$ “Feels Like” in Practice

### **$\beta \approx 1$ (Linear Intelligence)**

“We get smarter, but only proportionally.”

- Traditional consulting
- Classic R&D labs
- Bureaucratic innovation units

Growth is additive.

### **$\beta \approx 1.2\text{--}1.4$ (Weak Superlinearity)**

“Some compounding, limited moat.”

- Strong mid-size tech firms
- Specialized AI vendors
- Regional platforms

We see scale benefits, but not dominance.

**$\beta \approx 1.5-2.0$  (Platform Regime)**

“Winner-take-most dynamics.”

- Big Tech platforms
- Payment networks
- Dominant data brokers

Small IC advantages snowball.

**$\beta > 2$  (Systemic Control Regime)**

“Runaway dominance.”

- Google Search (early 2000s)
- Visa/Mastercard networks
- Core cloud infrastructure

**Marginal IC → massive rent.**

**4. Why  $\beta$  Is Central to Our Thesis**

Our core argument:

Intelligence Capital is not valuable because it exists.  
It is valuable because it compounds.

$\beta$  is the mathematical representation of compounding advantage.

Without  $\beta > 1$ , “Intelligence Capital” collapses into “better management.”

**5. Relationship to Failure and Exploration**

High failure portfolios increase IC stock. But only systems with high  $\beta$  can monetize it.

System	Failure Rate	IC Stock	$\beta$	Outcome
Startup hub	High	High	Low	Volatility
Platform	Medium	High	High	Dominance

Corporate lab      Low                      Low                      Low                      Stagnation

So:

Failure generates IC.  
 $\beta$  determines who captures it.

## 6. How $\beta$ Emerges (It Is Not Chosen)

Organizations cannot “set”  $\beta$ . They **engineer the conditions** that produce it.

$\beta$  rises when:

1. Learning loops are fast
2. Switching costs exist
3. Standards lock in
4. Data is proprietary
5. Governance favors scaling

This is why most innovation programs never generate power.

## 7. Measurement Proxies (How to Estimate $\beta$ )

In practice,  $\beta$  can be inferred from:

### A. Revenue vs Knowledge Stock

$$\beta \approx \frac{\log Y_2 - \log Y_1}{\log IC_2 - \log IC_1}$$

### B. Market Share Elasticity

How much share increases per learning gain.

### C. Marginal Return to R&D

When R&D returns accelerate,  $\beta > 1$ .

### D. Network Density

Higher connectivity → higher  $\beta$ .

---

## 8. Strategic Meaning

For boards and policymakers:

$\beta$  answers: *“If we get 10% smarter, how much richer do we get?”*

$\beta$	+10% IC →	Implication
1.0	+10% value	No moat
1.3	+13%	Weak moat
1.7	+18%	Strong moat
2.0	+21%	Dominance

---

## 9. Policy Implication

Governments often invest in E and L (exploration, learning). They rarely invest in  $\beta$ . But  $\beta$  requires:

- Interoperable platforms
- Data governance
- Standards leadership
- Procurement scale

Without  $\beta$ , public innovation leaks value.

## Conclusion

**In the Intelligence Capital framework, “power” ( $\beta$ ) measures the degree to which accumulated knowledge, data, and institutional advantage are converted into superlinear economic returns through network, scale, and coordination effects.**

## **X. The New Competitive Divide**

The AI economy will not be divided between companies that use AI and those that do not.

It will be divided between companies that:

- Generate Intelligence Capital systematically, and those that
- Consume Intelligence Capital produced by others.

The first group compounds advantage. The second group rents it. This divide will determine productivity, profitability, labor relevance, and geopolitical power for decades.

## **XI. The CEO Doctrine**

The CEO's role is no longer to oversee digital transformation. It is to govern the enterprise's **Intelligence Capital strategy**. Because in the Intelligence Capital economy:

- Strategy is Intelligence Capital generation.
- Operations are Intelligence Capital production.
- Advantage is Intelligence Capital compounding.

Enterprises that master this will dominate markets. Enterprises that do not will depend on those who do.

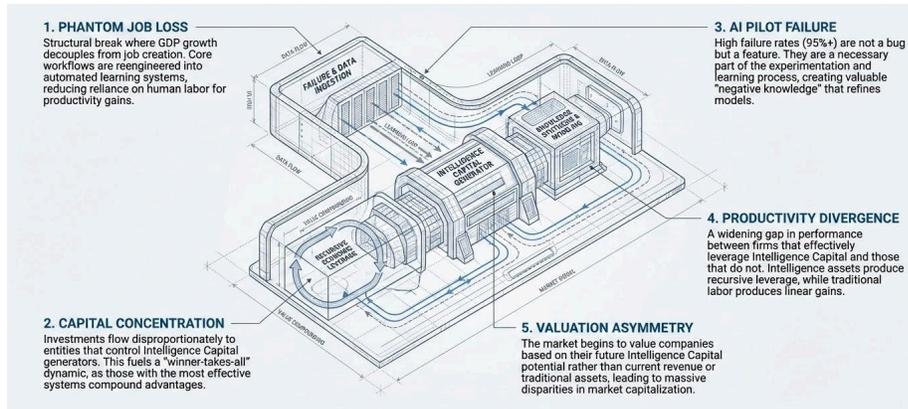
The CEO needs to steward a fluid labor market culture that can smoothly transition from IC Generator to IC Generator as the portfolio rebalances

## **XII. The Unified Explanation**

A number of phenomena have recently emerged that people have viewed as separate. They are, in fact, all part of the same structural transition in the economy:

- Phantom job loss
- Capital concentration
- AI pilot failure

- Productivity divergence
- Valuation asymmetry



They are all expressions of **the rise of Intelligence Capital as the dominant factor of production.**

### XIII. Final Doctrine

AI does not create advantage. **Intelligence Capital does.** The enterprises that generate it fastest will define the next era of economic leadership.

We are not entering an AI economy.

We are entering an **Intelligence Capital economy.**

**In that economy, advantage belongs to those who do not merely adopt intelligence, but generate it.**