AI × IP as Engine of Economic Development

From AI Adoption to National Value Capture

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Abstract

Artificial intelligence is increasing the rate at which economies create, analyze, and apply knowledge, but adoption alone does not determine who captures the resulting economic value. This paper develops a framework for policymakers built on that distinction. It defines the *AI Value Capture Gap*, describes the *AI × IP Development Flywheel*, identifies five mechanisms through which artificial intelligence and intellectual property drive national growth, and proposes a six-pillar *National Intangible Economy Readiness* diagnostic that selects among specific policy instruments. It then argues that trustworthy AI governance is part of the market infrastructure on which those mechanisms depend, and that governance translated into observable factors — capable of supporting detection, notification, and verified action — is what makes that infrastructure operable. The paper concludes by identifying operational AI governance as the precondition on which those mechanisms depend — proposing a common, interoperable architecture in which observable factors support detection of material failure, notification of accountable owners, and verified action — and setting out four actions governments can begin now.

Keywords: intellectual property · artificial intelligence · economic development · intangible assets · technology transfer · AI governance · independent assurance · public procurement

What Policymakers Should Take Away

The opportunity. AI increases the rate at which an economy can create and apply knowledge. It does not determine who owns the resulting value. A country can supply data, researchers, cultural content, and technical talent while ownership, financing, and licensing income accumulate elsewhere. That distance is the **AI Value Capture Gap**, and closing it is an institutional problem rather than a technological one.

The warning. In the week before this Forum, the organizations developing the most capable AI systems warned that AI-enabled cyberattacks will become far more widespread and sophisticated in the coming months, and Bill Gates warned that leaders lack an adequate plan for a transition that may produce either extraordinary opportunity or profound inequality.

The precondition. Every mechanism in this paper depends on organizations, insurers, lenders, and governments being willing to rely on AI systems they did not build. Governments should therefore work toward a common, interoperable, factor-based operating architecture: whatever substantive law each jurisdiction adopts, effective governance should identify observable factors capable of **detecting** material failure, **notifying** accountable decision-makers, and triggering verified **action**. Begin with one material government AI deployment or procurement.

The diagnostic. Six pillars — creation, ownership, protection, commercialization, valuation and finance, and value retention — identify where knowledge-based value is leaking out of a national economy. The pillar that binds determines the policy instrument that follows.

The four actions. Measure what your economy owns. Commercialize what you have already invented. Reward trustworthy AI in public procurement. And adopt common criteria for what trustworthy means.

Author's Disclosure

I serve as Chairman of AIQA Global, LLC, which provides independent measurement of enterprise AI governance and which would benefit commercially if independent AI governance assurance became more widely recognized. The recommendations here concern the broader category of credible, provider-neutral independent assurance. They are not a recommendation that any government designate or select any particular commercial provider. The *Chicago Principles for Independent AI Assurance* were published as an open reference standard for unrestricted public adoption and adaptation, expressly applicable to any assurance provider, and free to be adopted, adapted, or improved upon by anyone.[1] Section 9 asks LESI members to carry those criteria home and to promote or adopt them.

1. The Economic-Development Question Has Changed

For most of the modern era, economic-development policy was organized around things a government could see. Roads, ports, factories, power plants, and housing were never the whole economy, but they were visible representations of productive capacity. Governments competed for physical investment, financed infrastructure, built industrial parks, trained workers, and offered incentives to employers whose capital expenditure could be observed on the ground.

That model still matters. Advanced manufacturing, energy, logistics, healthcare, and digital infrastructure all depend on physical capital. What has changed is that physical assets increasingly work in combination with assets that are much harder to see: software, patents, data, brands, algorithms, customer relationships, organizational capabilities, contractual rights, and know-how. The competitive advantage of a modern factory may reside as much in its process software, sensor data, trade secrets, and machine-learning systems as in the equipment bolted to the floor.

Artificial intelligence accelerates that shift because it lowers the cost of working with knowledge. It can search, classify, translate, simulate, code, design, and identify patterns at speeds that were recently impossible, expanding the productive capacity of a research team, a technology-transfer office, a hospital, or a public agency. Those gains, however, do not answer the central question of economic development.

In an economy increasingly built on knowledge, what should governments do so that AI creates prosperity at home rather than merely activity?

The AI as IP™ Series

This paper draws on a three-part series published by J.S. Held and Ocean Tomo:[2]

A Strategic Framework for the Legal Profession (2025) — the legal foundations for recognizing and protecting AI assets.

A Framework for Boards, Executives, and Investors (2025) — the recognition gap between AI's economic contribution and its accounting treatment.

A Practical Guide for SMEs (2026) — the AI Capital Stack™ taxonomy used in Section 5.

A country can become a heavy user of AI without owning much of the value created through that use. It can supply data, researchers, cultural content, domain knowledge, and technical talent while the most valuable intellectual property, corporate equity, financing, licensing income, and commercial decision-making accumulate elsewhere. AI policy and intellectual-property policy can therefore no longer be treated as separate domains. One determines how rapidly knowledge can be produced and applied. The other determines who can own, finance, commercialize, and reinvest the resulting value.

2. The Economic Inversion and AI Acceleration

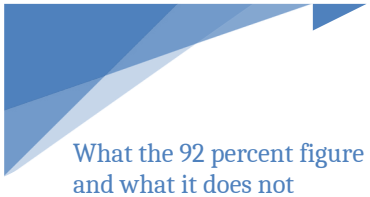
Ocean Tomo's long-running Intangible Asset Market Value study provides the starting point. In 1975, tangible assets represented approximately 83 percent of the market value of companies in the S&P 500 and intangible assets approximately 17 percent. By year-end 2025 that relationship

had inverted, with intangible value at approximately 92 percent. Ocean Tomo describes this shift as the economic inversion — a migration from value that can be touched toward value that can be thought.

Two qualifications belong with that figure. It is a residual market measure rather than an inventory of legally protected rights, and it describes a large-capitalization United States equity index rather than the productive capital of every economy represented in this room. What it does establish is direction and magnitude, and that is sufficient for the policy point: development systems designed principally to attract and finance tangible capital are incomplete when the majority of enterprise value in the world's deepest equity market resides elsewhere.

I will not spend further time proving the proposition. John Hudson presents the full record, the regional evidence, and the methodological qualifications later this morning.

AI is the next acceleration point. It makes the production and application of knowledge faster and, in many settings, less expensive. That does not mean physical infrastructure disappears; AI depends on data centres, semiconductors, energy, networks, and laboratories. It means that an increasing share of the return generated by those physical systems will depend on the intangible assets wrapped around them.



What the 92 percent figure measures — and what it does not

Intangible Asset Market Value is a residual: market capitalization less net tangible asset value, calculated across the constituents of a given index at a given date. It is not an inventory of legally protected intellectual property.

The residual may reflect patents, copyrights, trademarks, and trade secrets, but it also reflects brands, customer relationships, organizational capability, business models, network effects, and expected innovation.

Scope. This is a large-capitalization United States public-equity measure. It is evidence of the direction and magnitude of a transformation in a major equity market. It is not a national-accounting statistic, and it does not establish that 92 percent of value in every economy, in private companies, or in small and medium enterprises is intangible.

Ocean Tomo Intangible Asset Market Value study, year-end 2025.[3] The full fifty-year record, the five-market regional analysis, and the methodological limitations are addressed in the companion paper presented at this Forum by John A. Hudson.

3. Adoption Is Not the Objective: The AI Value Capture Gap

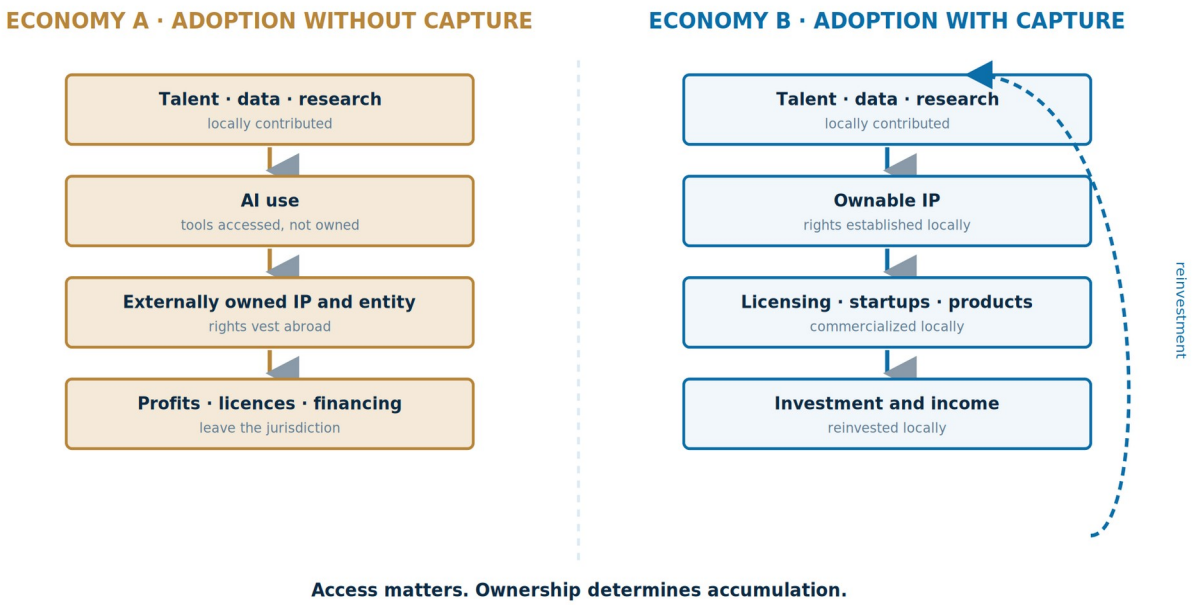


Figure 1. *Two AI economies. The same inputs produce different national outcomes depending on where ownership is established.*

The new development divide is not simply between countries that use AI and countries that do not. The more revealing divide is between economies that participate in AI activity and economies that capture a meaningful share of the resulting value. I refer to that difference as the **AI Value Capture Gap**: the distance between the knowledge, data, inventions, software, creative assets, and capabilities an economy helps produce and the portion of their economic value it is able to own, finance, commercialize, and retain.[4]

AI can narrow the cost-of-innovation gap. Capabilities once available only to large firms and well-funded research institutions are becoming accessible to smaller organizations and smaller economies. But if ownership, commercialization, valuation, and financing systems do not keep pace, AI can widen the value-capture gap at the same time.

The distinction can be tested with direct questions. Where is the resulting IP owned? Who controls the proprietary datasets? Where are the companies incorporated and financed? Where is licensing income received? Where are high-value functions such as product strategy, model integration, and commercialization performed? Where are profits reinvested? Who owns the next generation of intellectual capital created by the first? These reveal more than the number of AI users or the quantity of compute deployed.

Value capture is not a synonym for economic isolation. Foreign direct investment can be highly beneficial, cross-border licensing can accelerate development, joint ventures can transfer capability, and multinational firms can build durable local ecosystems. The issue is not whether value crosses borders. It is whether the local economy participates meaningfully in ownership, employment, commercialization, financing, and reinvestment.

This matters particularly for countries rich in data, cultural content, scientific talent, or domain expertise. Those inputs are economically valuable to AI systems even where local capital markets and commercialization institutions are weak. An economy that contributes the raw material of the intangible economy without the institutional capacity to convert its contributions into ownable and financeable assets may find itself in the digital equivalent of a commodity trap. Access can improve productivity and public services, and those gains are real. But access without ownership leaves the underlying distribution of economic value largely unchanged.

4. The AI × IP Development Flywheel

Figure 2. *The AI × IP Development Flywheel. Each turn is intended to be larger than the last.*

If the capture gap is the problem, the flywheel is the mechanism that closes it. The relationship between AI and intellectual property is a reinforcing loop. Predictable ownership frameworks make investment in research more credible, because innovators and investors can see a path to capturing returns. Capital and research create new knowledge. AI multiplies the productivity of that research by accelerating search, experimentation, design, and analysis. The resulting innovations can be protected, licensed, commercialized, and financed, and those returns support the next cycle.

IP establishes the assets. AI creates leverage. Commercialization converts both into prosperity.

Each clause does distinct work. IP establishes the assets because knowledge creation alone does not determine who receives its economic return; patents, copyrights, trade secrets, data rights, and contractual rights structure ownership and exchange, and it is that structure which turns an idea into something a balance sheet, a lender, or a licensee can recognize. AI creates leverage

because it allows the same researcher, engineer, university, or agency to process more information and test more possibilities. Commercialization converts both into prosperity because a protected idea has limited development impact until it becomes a product, a company, a licence, an export, or a source of recurring income.

The policy error is to treat these as separate conversations. Many governments have an AI strategy, an IP office, a science ministry, a university research system, a capital-market regime, and a development agency, with little connective tissue among them. The better question is whether those institutions collectively form a value-creation system. Can research become an asset? Can the asset become an enterprise? Can the enterprise attract capital? Can the technology be licensed across borders without surrendering all ownership? Can the returns be reinvested in the next generation of knowledge?

This does not imply that stronger IP is always better IP. Rights that are too weak discourage investment and facilitate extraction. Rights that are too broad or inflexible impede follow-on innovation, competition, and access. The development objective is not maximal exclusion but a workable system in which ownership is clear enough to support transactions and investment while diffusion remains possible through licensing, collaboration, and competition.

5. Five Mechanisms That Turn AI and IP Into Growth

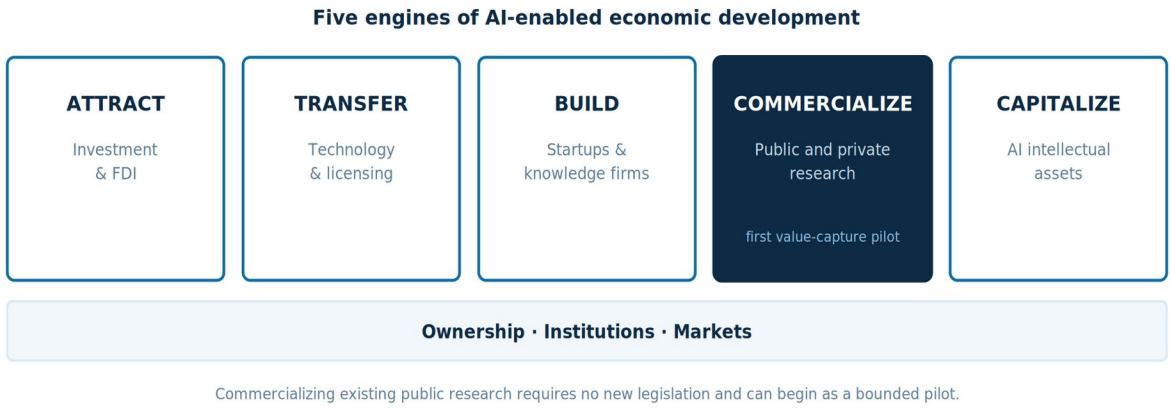


Figure 3. *Five engines of AI-enabled economic development.*

Development policy must do more than encourage invention. It must build the pathways through which invention becomes an ownable asset, an investable enterprise, a licensable technology, and ultimately a source of income. Five mechanisms are especially important.

Attracting investment. Investment follows expected returns, and for intangible-intensive businesses those expectations depend partly on whether the underlying assets can be identified, controlled, protected, transferred, and monetized. A reliable IP regime does not guarantee investment, and investors weigh market size, stability, talent, infrastructure, and taxation. But ownership and enforceability are part of the investment case, because they affect whether the return on research can be captured rather than dissipated.

Enabling technology transfer. Licensing allows knowledge to cross borders without requiring the originating owner to surrender all participation in its value. That matters in AI

because smaller economies can access sophisticated tools without recreating every layer of legacy infrastructure. The development opportunity is strongest where transfer builds local capability rather than one-time dependence.

Building knowledge enterprises. Startups convert talent and ideas into entities that can own assets, contract with partners, license technology, employ people, and raise capital. A talented researcher is an economic resource; a company that owns protectable technology, documented know-how, contracts, and market relationships is a financeable economic asset.

> The AI Capital Stack™
>
> There is no single legal or economic object called "the AI asset." A commercially important AI capability is distributed across layers, each attracting different protection.
>
> **Primary:** training data assets; model assets; algorithmic frameworks; computational infrastructure; deployed applications. **Supporting:** synthetic data generators; prompt and retrieval architectures; evaluation systems; agent frameworks; governance and risk models.[5]
>
> The economically important asset is usually the combination, plus the tacit knowledge required to operate it. Two organizations using similar foundation models produce very different results because one has better data, workflows, integration, rights, or operational discipline. A national AI strategy confined to model access and compute misses most of that value. See Figure 4 and Annex A.

Commercializing research. Among the economic-development applications discussed in this paper, this is the one I would emphasize most strongly, because it can begin as a bounded pilot without waiting for new legislation, a new institution, or an appropriation beyond the cost of the exercise itself. Many countries already possess valuable inventions inside universities, hospitals, laboratories, and publicly supported research institutions. The constraint is rarely a shortage of invention. It is the capacity to evaluate thousands of disclosures, map them to industries, identify new applications, find licensees, and decide which opportunities justify scarce commercialization resources. A technology-transfer office can use AI-assisted analytics to classify portfolios, compare prior art, map markets, screen potential partners, and rank opportunities for human review. The objective is not to automate the commercialization decision but to expand the field of view of the professionals making it. Legal strategy, patentability, valuation, market judgement, and negotiation still require expertise.

What intellectual assets have our public research institutions already created that AI can now help us recognize as commercially important?

Capitalizing AI itself. The fifth mechanism is to stop treating AI solely as an operating expense and to manage it as a portfolio of strategic intangible assets — identified, documented, protected, valued, financed, licensed, and commercialized. Where an economy lacks the professional capacity to perform those functions, the assets may exist without being visible to the market, which is the practical form of the capture problem.

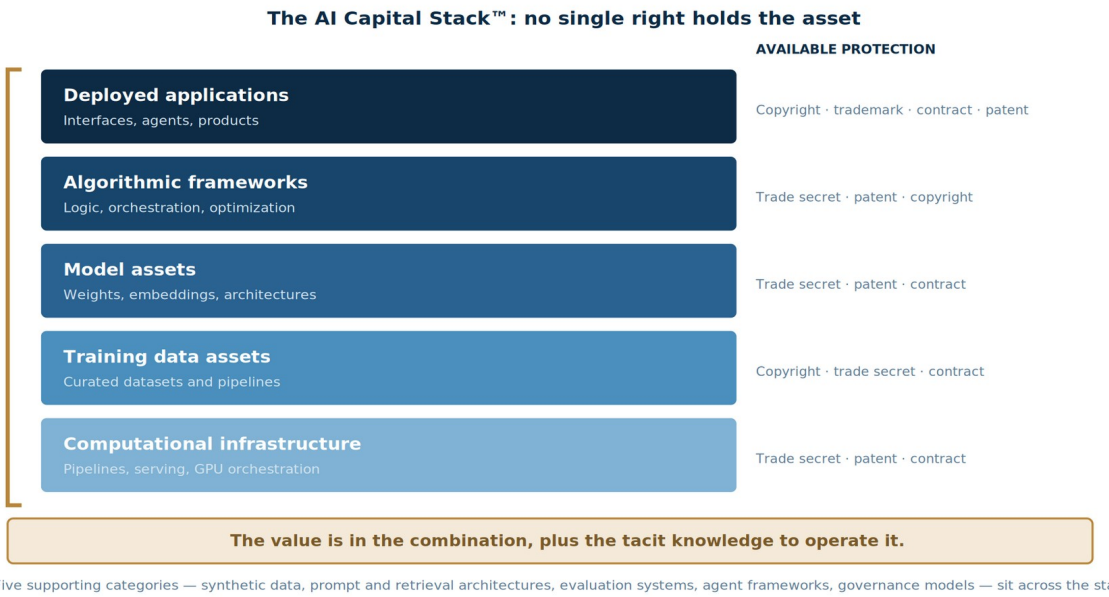


Figure 4. *The AI Capital Stack™. A gap in one layer does not render the whole economic asset unowned, but no single right holds it either.*

6. National Intangible Economy Readiness

Figure 5. *The six-pillar diagnostic. Applied to one jurisdiction, agency, sector, or innovation cluster.*

If the objective is to create and capture intangible value, governments need a diagnostic broader than AI adoption. The **National Intangible Economy Readiness** framework asks whether an economy can generate knowledge-based value and then carry that value through ownership, protection, commercialization, finance, and reinvestment. It has six pillars, each expressed as a question.

Creation: are we generating valuable knowledge and innovation? **Ownership:** who controls what is created, and are rights sufficiently clear across patents, software, trade secrets, data, brands, and AI-enabled outputs? **Protection:** can those rights survive commercial pressure, given the state of courts, administrative capacity, cybersecurity, and remedies? **Commercialization:** can research reach the market through technology transfer, licensing capability, startup formation, and industry partnership? **Valuation and finance:** can capital markets recognize and fund intellectual capital? **Value retention and inclusion:** where do the returns accumulate — who owns the companies, who receives licensing income, who develops the workforce, and are revenues reinvested?

Different gaps call for different interventions. An economy may be excellent at creation and weak at commercialization. Another may protect rights well but lack risk capital. A third may attract investment while retaining little of the resulting IP. That is why the diagnostic is presented as a diagnostic and not as a ranking: its function is to select the instrument, and Section 9 returns to that point.

7. Government as Market Architect

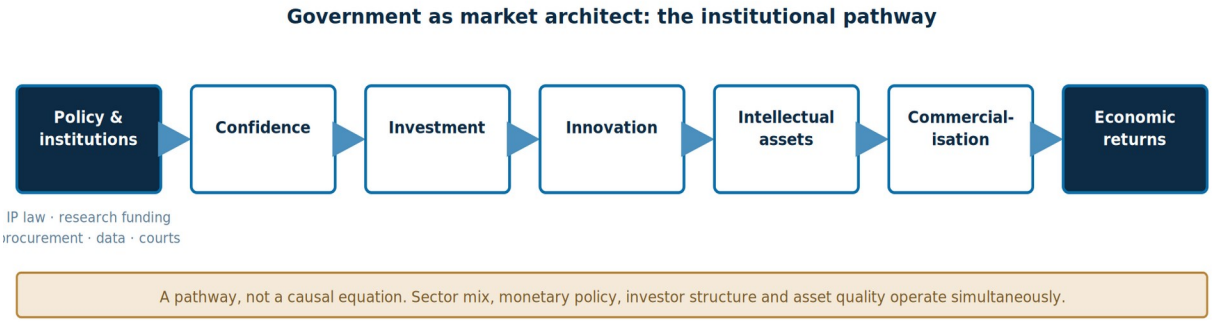


Figure 6. *Where government acts. The figure describes a pathway rather than a causal equation.*

Government is often described as the regulator of AI. That is one role among many. Government also funds research, educates talent, grants and administers IP rights, purchases technology, sets procurement standards, shapes capital markets, governs public data, supports infrastructure, and underwrites the credibility of institutions. In an intangible economy those functions help determine whether knowledge can become investable and commercial value.

This broader role creates an opportunity. Governments can improve development outcomes without selecting particular technologies or firms. Clear ownership rules, credible courts, capable IP offices, functioning commercialization systems, transparent procurement, and reliable governance expectations all improve the environment in which private actors decide.

The companion Ocean Tomo paper takes the next step, comparing five major markets through a period of common global shocks and asking what the divergence in intangible valuation suggests about predictability, governance, market structure, and asset quality. Its findings are more nuanced than any claim that regulation is good or bad. The relevant question is how institutional design affects the confidence required to invest in assets that cannot be physically inspected.

8. Trust as Enabling Infrastructure

I want to depart from the framework for a moment, because something happened in the week before this Forum that I do not think has been given the weight it deserves.

On the twenty-seventh of August, more than one hundred organizations — including the companies that build the most capable AI systems in the world, alongside payment networks, banks, market infrastructure, and chipmakers — published a joint open letter stating that "in the coming months, AI-enabled cyberattacks will become far more widespread and sophisticated," and calling for a collective defensive surge.7 The day before, Bill Gates published an essay arguing that AI could be either the greatest equalizer ever invented or the worst source of injustice, that the transition ahead will be among the most turbulent periods in modern history, and that leaders lack an adequate plan for managing it.8

The two letters

27 August 2026. More than one hundred organizations, including the principal frontier AI developers alongside payment networks, banks, market infrastructure, and chipmakers, published a joint open letter warning that AI-enabled cyberattacks will become far more widespread and calling for a defensive surge.[7]

26 August 2026. Bill Gates published *The Turbulent AI Era Is Here. The Choices We Make Now Are Critical*, arguing that AI could be either the greatest equalizer ever invented or the worst source of injustice, that the transition will be among the most turbulent periods in modern history, and that leaders lack an adequate plan for managing it.[8]

Primary sources: openai.com/collective-cyberdefense and gatesnotes.com. Full citations at notes 7 and 8.

I would ask the delegates in this room to sit with the first of those for a moment. The organizations best positioned to understand emerging capabilities have collectively warned that existing defensive capacity may be inadequate. They are not disinterested parties, and their warning carries commercial and regulatory implications of its own. But it is a fire alarm sounded by people inside the building, and I do not think the response has yet matched it.

I do not raise this to argue for restriction. I raise it because it bears directly on the economic argument I have been making. Every mechanism in this paper — investment, technology transfer, enterprise formation, research commercialization — depends on organizations, insurers, lenders, and governments being willing to rely on AI systems they did not build. It is a precondition, and it is the thing most likely to be withdrawn suddenly.

Which brings me to the problem underneath both letters, and I want to state it narrowly, because the easy version of this argument is wrong. We do not lack AI governance instruments. The NIST AI Risk Management Framework, ISO/IEC 42001, ISO/IEC 42006:2025, the European Union's AI Act, the OECD AI Principles, and a growing body of national and sectoral rules are in force, published, or in active use, with particular obligations taking effect on different schedules. They take different forms — a voluntary framework, a management-system standard, requirements for the bodies that audit and certify those management systems, binding legal obligations — and each does real work. ISO/IEC 42006:2025 in particular already specifies requirements for the competence and consistency of bodies auditing and certifying AI management systems.[14]

What none of them does automatically is produce standardized, comparable operational evidence across organizations and across jurisdictions. A principle, a management-system requirement, or a legal duty becomes operational only when it is translated into observable factors, assigned responsibilities, required documentation, testing procedures, and defined thresholds. Without a sufficiently granular translation, evidence often remains fragmented, organization-specific, and difficult to compare across systems or jurisdictions.

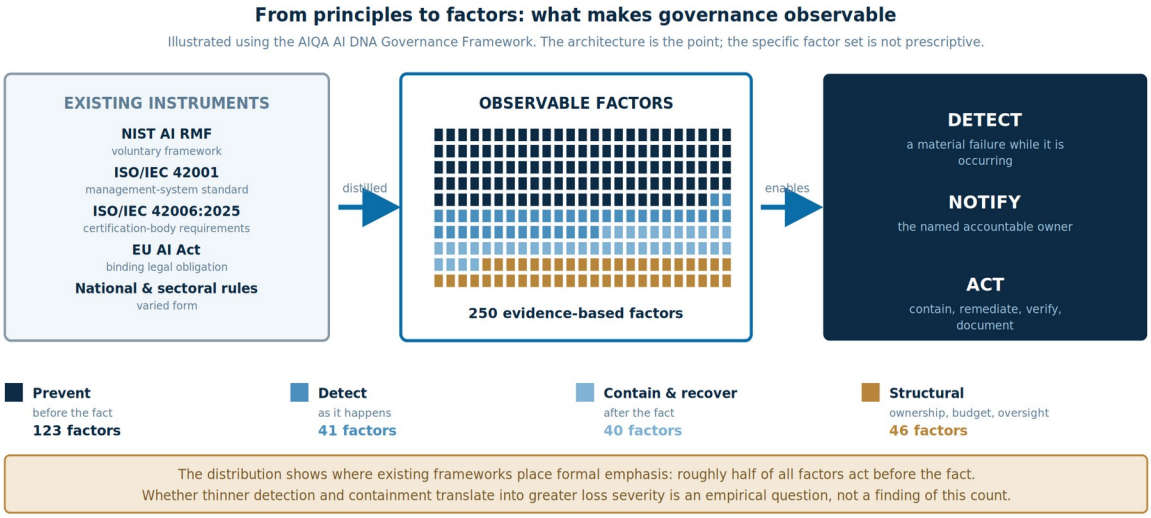


Figure 7. *Governance becomes operable when principles are translated into factors that can be observed, evidenced, and monitored.*

That translation is feasible, and AIQA's framework demonstrates one way it can be performed. Existing instruments can be distilled into a finite set of discrete, observable governance factors — matters of fact that can be evidenced rather than asserted. AIQA's distillation, which it calls the AI DNA Governance Framework, produces two hundred and fifty such factors across five dimensions. Other providers, standards bodies, and governments will produce different sets, and should. The proposition I am putting to this room is to adopt the architecture, not any vendor's taxonomy. What should be common is that each material factor is observable, assigned to a named accountable owner, and connected to predetermined procedures.

Detection, notification, and corrective action are not new. Cybersecurity, safety engineering, financial controls, and regulated industries have performed all three for decades. What changes once governance is expressed in observable and assigned factors is that these functions become more systematic, more comparable, and more auditable. A material failure can be **detected** while it is occurring rather than reconstructed at a year-end review. The accountable owner can be **notified**, because the failing factor identifies who owns it. And the organization can **act** — contain, remediate, verify, and document — in a form a regulator, an insurer, or a court can later examine.

Stated as a policy objective, this does not require a common AI statute, a single global regulator, or uniform substantive rules. Constitutional systems, regulatory traditions, technical capacity, and risk tolerance differ across the jurisdictions represented here, and that is not a defect to be engineered away. What is achievable is a common and interoperable *operational* architecture: each jurisdiction keeping its own law while agreeing that effective governance must specify which observable factors are monitored, who is notified when those factors fail, and what verified action follows.

Self-attestation has a place in this. It records what an organization says it has done. But it is structurally different from independent assurance, because the party making the claim is also the party whose conduct is being evaluated. That difference is not a matter of good faith. It is a matter of who is positioned to be believed.

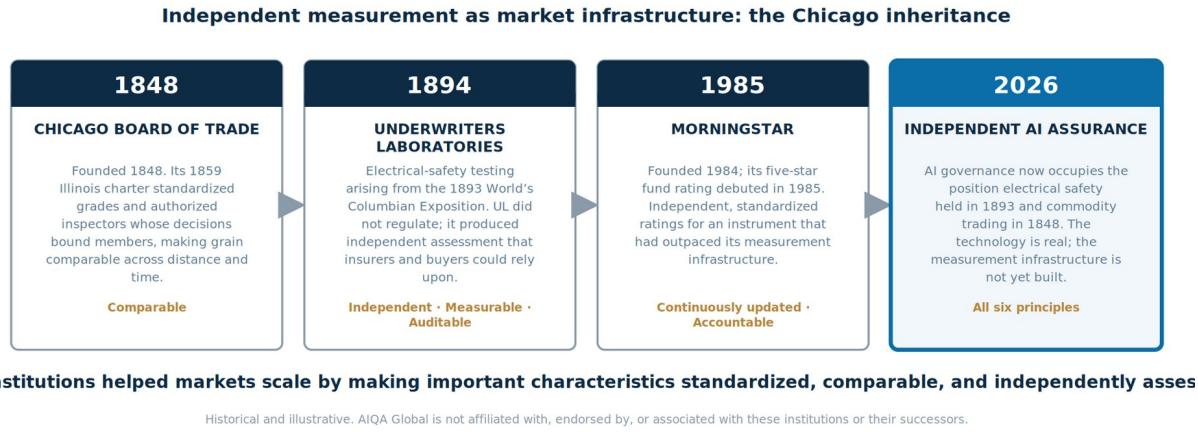


Figure 8. *Three times in one city, an unmeasurable class of value was made comparable by a party with no stake in the answer.*

There is a further reason this matters to the officials in this room. Public anxiety about AI is not irrational. A public asked to accept AI in policing, benefits administration, healthcare, and education is being asked to rely on systems it cannot inspect. Measurement does not eliminate that risk. It makes the difference between governed and ungoverned deployment visible to the people bearing it — and that visibility is what a minister can defend.

Markets have solved this class of problem before, and generally through private measurement infrastructure that preceded mature public regulation. The Chicago Board of Trade, founded in 1848, received an Illinois charter in 1859 that standardized grades and authorized inspectors whose decisions bound its members.[15] In 1894, following electrical-safety concerns arising from the 1893 World's Columbian Exposition, an independent testing bureau opened in the same city and became Underwriters Laboratories.[16] Morningstar, founded in 1984, introduced its five-star fund rating in 1985, applying comparable discipline to a financial instrument that had outpaced its measurement infrastructure.[17] None of the three held enforcement power. Each helped its market scale by making an important characteristic standardized, comparable, and independently assessable.

AI governance is not identical to grain inspection, electrical safety, or fund analysis. The analogy is institutional. In each case a new economic activity created an information asymmetry that participants could not resolve on their own, and each was addressed by measurement produced by a party with no stake in the answer. AIQA published the Chicago Principles for Independent AI Assurance to state the conditions under which such assurance should be considered trustworthy, as an open reference standard applicable to any provider including its own competitors. It is one proposed articulation among others, and delegates should feel free to adopt, adapt, improve, or replace it, provided the resulting criteria remain provider-neutral and publicly available. Whatever framework prevails, the four propositions that matter for policy are these: trust is a precondition for AI adoption to scale; self-attestation and independent assurance perform different functions; governance must be translated into observable and auditable controls before it can be relied upon; and public procurement can reward credible, provider-neutral assurance without naming a vendor.

The Six Principles

Independent · Measurable · Auditable · Comparable · Continuously Updated · Accountable.

ISO/IEC 42001 specifies requirements for AI management systems, and ISO/IEC 42006:2025 specifies requirements for bodies auditing and certifying them.[14] The Chicago Principles address a related question in a form intended for public adoption: what characteristics any assurance provider and process should possess before third parties rely on the result, including outside formal certification schemes.[1]

Insurance

Munich Re offers aiSure, an insurance-backed performance warranty addressing specified financial losses or liabilities arising from AI errors or underperformance.[9] Other specialty-market products are emerging, but providers and terms vary. Whether an auditable AI asset inventory becomes a standard underwriting condition is a plausible direction of travel rather than established market practice and is identified here as such.

9. The Precondition and the Four Actions

Before the actions, the precondition. The immediate task in AI governance is not to produce another statement of principles. It is to make existing principles, standards, and legal duties operational, so that the reliance on which every mechanism in this paper depends can actually be sustained. Governments need not wait for a common statute or a new global regulator to begin. They can map what they already require onto a shared functional architecture.

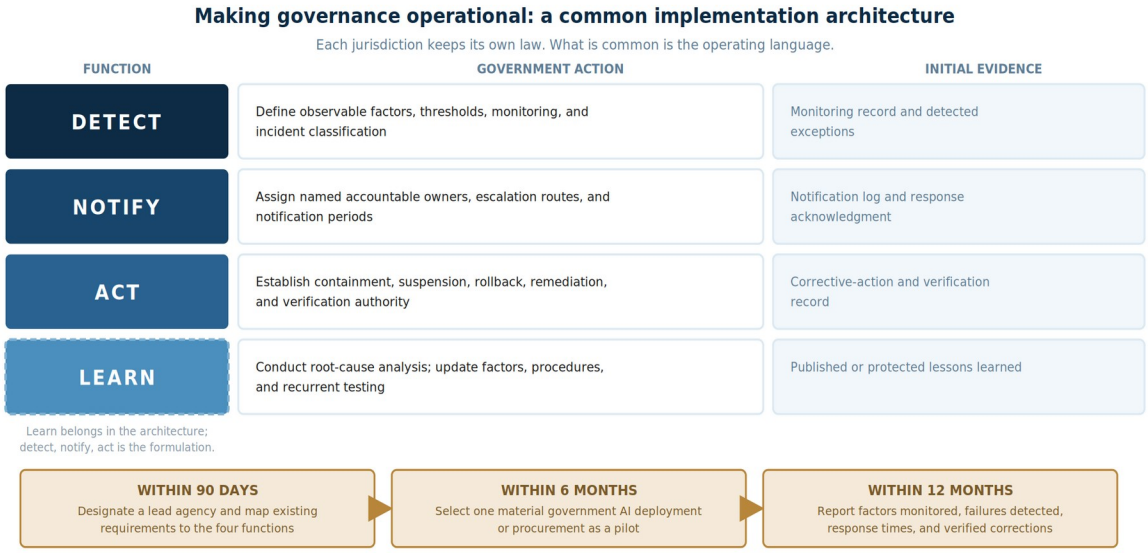


Figure 9. *A common implementation architecture. Each jurisdiction keeps its own law; what is common is the operating language and the evidence it produces.*

A jurisdiction could designate a lead agency and map its existing regime to that structure within ninety days, select one material government AI deployment or procurement as a pilot within six months, and report within twelve months on factors monitored, failures detected, notification performance, containment and remediation times, corrective actions independently verified, and changes made to governance requirements. None of that requires new legislation, and none of it requires agreement on substantive rules.

With that precondition in view, the frameworks in this paper reduce to four actions. The first three are for governments. The fourth is a request I would make of LESI members directly. Each can begin as a bounded step and produce evidence before broader policy is adopted.

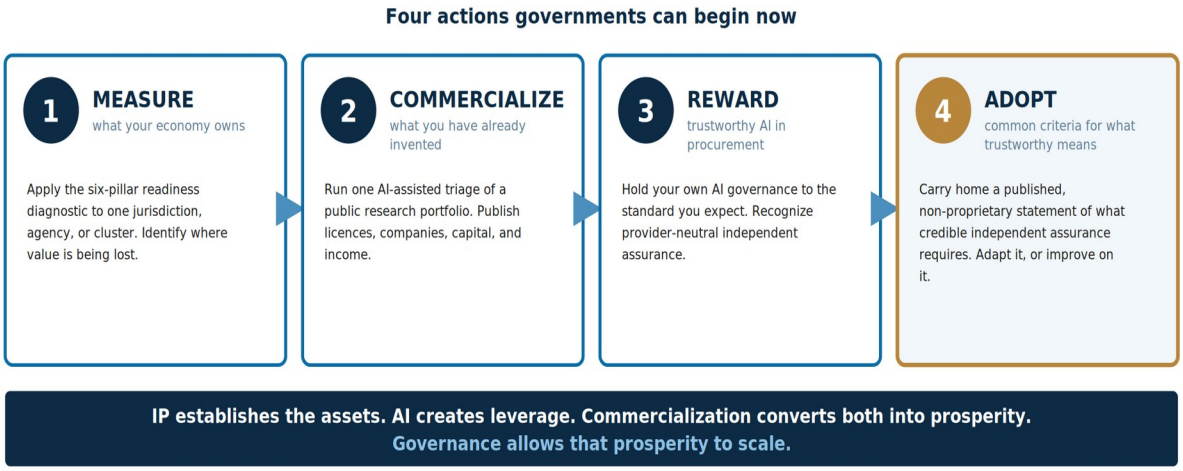


Figure 10. *Four actions. None requires predicting which AI model will prevail, and none requires designating a provider.*

Measure what your economy owns. Apply the readiness framework to one jurisdiction, agency, sector, or innovation cluster. The objective is not a ranking but the identification of where knowledge-based value is being lost. A government may find that its universities produce strong research but lack licensing capacity; that startups are formed locally but financed elsewhere; that IP rights exist but trade-secret controls are weak; or that domestic lenders cannot evaluate intangible collateral. The diagnostic turns "build an AI economy" into specific institutional work.

Commercialize what you have already invented. Select one publicly supported research portfolio and apply AI-assisted analytics together with experienced human review. Classify technologies, map them to industries, identify additional applications, search for licensees and strategic partners, and prioritize the opportunities that justify deeper legal, technical, and valuation work. Then publish the outcomes: technologies reviewed, opportunities identified, transactions completed, companies formed, capital attracted, and recurring income generated.

Reward trustworthy AI in public procurement. Government should first hold its own AI governance to the standard it expects of others, and then consider how credible, provider-neutral independent assurance can be recognized in procurement where AI use is material. Jurisdictions will implement this differently — as one evaluation factor, as a preference, or as a minimum requirement for specified high-risk procurements. Whether assurance is a threshold qualification or an evaluation factor is properly a matter for each jurisdiction. What matters is that public procurement should not be written around AIQA or any other named vendor. The durable formulation is independent third-party AI governance assurance meeting criteria established by the procuring entity.

Which raises the question the third action cannot answer on its own. A procurement officer in any ministry represented here, handed an instruction to recognize credible independent assurance, will reasonably ask what qualifies. Without an answer, the clause is aspirational. With one, it is operable on Monday.

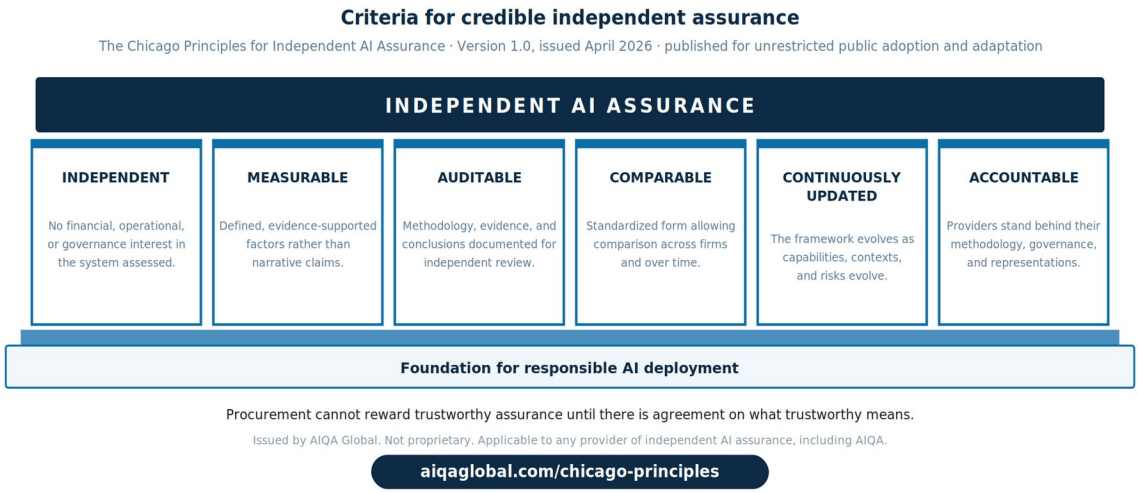


Figure 11. Six criteria for credible independent assurance. Version 1.0 issued April 2026 and publicly announced 28 May 2026; published for unrestricted public adoption and adaptation and expressly applicable to any provider.

Adopt common criteria for what trustworthy means. This is the request I would make of LESI members rather than of governments alone. Take back to your institutions a published statement of what credible independent AI assurance requires — that it be independent of the system assessed, measurable against defined evidence, auditable by a qualified reviewer, comparable across organizations and over time, continuously updated as the technology moves, and accountable in its own governance. Promote it, adopt it, adapt it to your legal tradition, or improve on it and publish the improvement.

The **Chicago Principles for Independent AI Assurance** are one such statement. My own organization wrote them, which I have disclosed and which you should weigh. They are also published for unrestricted public adoption and adaptation, carry no proprietary claim, and were written to apply to any assurance provider including their author and its competitors.

What matters is not that this particular articulation prevails. It is that some common articulation does. Licensing professionals built the market conventions that made patent licensing tradeable across borders. LESI and its national societies did much of that work, over decades, largely through voluntary adoption rather than statute. Independent AI assurance needs the same thing now, and it needs it faster than any legislature is likely to supply it. If the criteria your institution adopts are better than these, publish them and I will adopt yours.

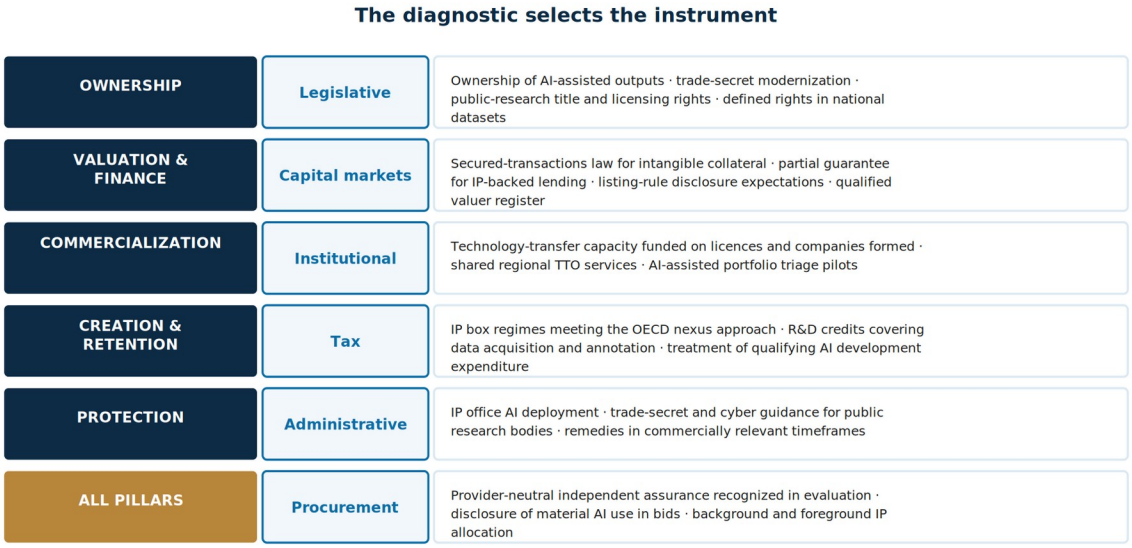


Figure 12. *The binding pillar selects the instrument class. Full detail in Annex B.*

Delegates will be asked at home what, concretely, is being proposed, so four instruments are worth naming. **First, a statutory right for publicly funded institutions to retain title to their inventions and to license them** — one potentially high-leverage reform, particularly where current law leaves ownership fragmented or uncertain, though outcomes depend on institutional capacity, funding terms, and market demand.[10] **Second, secured-transactions law permitting a perfected security interest in intellectual property and other intangible collateral**, without which IP-backed lending is likely to remain costly, uncertain, and difficult to scale.[11] Third, listing-rule disclosure expectations for intangible assets and capital allocation. Fourth, research and development incentives that expressly address the treatment of qualifying data acquisition, cleaning, curation, and annotation expenditures, whose eligibility may otherwise be uncertain under existing definitions.[12]

On the third of those I will be careful, because it involves a causal claim I cannot fully support from this platform. In 2023 the Tokyo Stock Exchange asked all companies listed on its Prime and Standard Markets to analyze their cost of capital and market valuation and to disclose plans for improvement, with particular attention directed to companies trading below book value.13 A substantial revaluation of Japanese equities followed. Whether the disclosure request caused that revaluation cannot be isolated from monetary policy, currency movement, foreign capital inflows, index composition, and sector effects operating over the same period, and I do not assert that it did. John Hudson examines the evidence and its limitations this morning. What can be said is narrower and still useful: the intervention operated through an exchange request for disclosure rather than a binding rule or a direct fiscal subsidy.

10. Conclusion: From Participation to Prosperity

The economic inversion has already occurred in the world's deepest equity market, and AI will increase the velocity at which knowledge is created and applied. AI capability alone, however, will not determine who benefits economically.

IP structures ownership. Commercialization converts ownership into products, companies, licences, exports, and recurring income. Finance allows those assets and enterprises to attract further capital. Institutions determine whether the cycle operates with enough predictability to sustain investment. And governance becomes part of that institutional infrastructure once markets must evaluate systems and organizations they cannot directly inspect — which is why governance expressed as observable factors, rather than as principles alone, is the form that makes it useful.

The objective is not to choose between innovation and governance, or between openness and ownership. It is to build an economy in which innovation can be created quickly, ownership can be established clearly, technology can diffuse through transactions, value can be captured and reinvested, and trustworthy governance allows adoption to scale.

On that last condition I would leave the delegates with three questions rather than a recommendation. The immediate task is not to produce another statement of AI principles; it is to make existing principles, standards, and legal duties operational. Every government represented here should be able to answer: what observable factors will tell us that an AI system or its governance is failing? Who will be notified when those factors fail? And what authority and procedure will ensure that someone acts?

Detect. Notify. Act. Those three functions can become a common operating language for trustworthy AI governance across jurisdictions — not a uniform statute, not a single regulator, and not a proprietary methodology. With that infrastructure in place, governments can use AI far more confidently to identify, protect, finance, and commercialize the intangible assets their economies already create.

Measure what your economy owns. Commercialize what you have already invented. Reward trustworthy AI in what you buy. And agree on what trustworthy means.

IP establishes the assets. AI creates leverage. Commercialization converts both into prosperity. Detect–notify–act governance allows that prosperity to scale without allowing its risks to scale unchecked.

Annexes

The following material was not read into the record. It is provided for readers of the published paper.

Annex A · The AI as IP™ Series

Malackowski, J.E., and Carnick, E.T. *AI as Intellectual Property: A Strategic Framework for the Legal Profession.* J.S. Held Perspectives, 2025. Establishes that AI systems comprise data, compute, and algorithms; that each attracts different protection; and examines the circumstances in which qualifying AI-development expenditures may satisfy the recognition criteria of IAS 38.

AI as IP™: A Framework for Boards, Executives, and Investors. J.S. Held Perspectives, 2025. Addresses the recognition gap between AI's economic contribution and its accounting treatment; sets out a five-pillar management lifecycle of identification, valuation, protection, management, and optimization; and anticipates convergence among investors, insurers, and regulators on AI capital disclosure.

AI as IP™ Framework: A Practical Guide for SMEs to Classify, Protect, and Monetize AI Assets. J.S. Held Perspectives, 2026. Sets out the AI Capital Stack™ taxonomy of five primary and five secondary asset categories, with protection strategies, contractual architecture, and a ninety-day implementation plan.

Annex B · Policy Instruments by Readiness Pillar

These are instruments in use across various jurisdictions, offered as a menu rather than a prescription. Suitability depends on legal tradition, fiscal capacity, treaty obligations, and administrative capability, and none should be adopted without local analysis. Tax treatment, financial-reporting treatment, and secured-transactions treatment are distinct policy questions and are separated below; tax capitalization does not by itself cause an internally generated asset to be recognized on a financial-reporting balance sheet.

Binding pillar	Instrument class	Specific measures
Ownership	Legislative	Statutory clarification of ownership in AI-assisted inventions and outputs, including default allocation among employer, contractor, and publicly funded institution · trade-secret modernization with a statutory reasonable-measures standard, and express recognition that documented AI governance may evidence it · a statutory right for publicly funded institutions to retain title and license · defined rights in nationally held datasets, with default licensing terms
Valuation and finance	Capital markets	Secured-transactions law permitting a perfected security interest in IP and other intangible collateral, with a functioning registry and clear priority rules · partial government guarantee for IP-backed lending · listing-rule disclosure expectations for intangible assets and capital allocation · financial-reporting disclosure of material AI-related investment and intangible resources · professional standards and a register of qualified IP valuers
		Direct funding of technology-transfer capacity, measured on licences and companies formed rather than filings · shared or regional technology-transfer services for smaller economies · AI-assisted portfolio triage pilots with published outcomes
Commercialization	Tax	IP box regimes applying a reduced rate to qualifying IP income, designed to satisfy the OECD BEPS Action 5 modified nexus approach · research
Creation and retention		

Binding pillar	Instrument class	Specific measures
		and development incentives expressly addressing qualifying data acquisition, cleaning, curation, and annotation expenditures, whose eligibility may otherwise be uncertain · tax treatment of qualifying AI-development expenditure, distinguished from financial-reporting recognition · withholding tax on cross-border royalties calibrated to encourage inbound licensing
Protection	Administrative	IP office AI deployment for search and examination quality · trade-secret and cyber-hygiene guidance for public research institutions · enforcement capacity and remedies operating within commercially relevant timeframes
Cross-cutting	Procurement	Recognition of provider-neutral independent AI governance assurance in supplier evaluation · required disclosure of material AI use in bids · background and foreground IP allocation rules in government contracts

Annex C · Governance Factor Distribution

The factor distribution referenced in Section 8 is set out below for readers who wish to examine it. It describes where a distilled factor set places formal emphasis. It does not measure control effectiveness, loss frequency, expected severity, insurance pricing, or residual risk, and no such inference should be drawn from the counts alone.

By dimension	Factors	By function	Factors
Strategic alignment	31	Prevent — before the fact	123
Oversight and accountability	65	Detect — as it happens	41
Technical robustness	51	Contain and recover — after the fact	40
Responsible AI and compliance	60	Structural	46
Adaptability and education	43	*Total*	*250*

Source: AIQA Global, AI DNA Governance Framework underlying the AIQ™ Score; 15 provider-overlay factors are excluded from these counts. The functional mapping is a first-pass analytical view and does not alter AIQ™ Score weights, bands, or thresholds. The distribution suggests that existing frameworks place greater formal emphasis on prevention than on real-time detection, containment, and recovery. Whether that imbalance translates into higher loss severity in practice requires empirical testing that this count does not supply. (AIQAglobal.com)

Annex D · Notes and Sources

1. AIQA Global, LLC, *The Chicago Principles for Independent AI Assurance*, Version 1.0, aiqaglobal.com/chicago-principles. The published statement carries an issue date of April 2026; AIQA's public announcement is dated 28 May 2026. The Principles are issued as a foundational statement for the field, are expressly not proprietary, apply to any provider of independent AI assurance including AIQA, and are open for comment at principles@aiqaglobal.com. No formal public-domain dedication instrument is asserted here; the Principles are published for unrestricted public adoption and adaptation.
2. Malackowski, J.E., and Carnick, E.T., with D. Ngo, *AI as Intellectual Property: A Strategic Framework for the Legal Profession*, J.S. Held Perspectives (1 October 2025); Malackowski, J.E., Carnick, E.T., and Ngo, D., *AI as IP™: A Framework for Boards, Executives, and Investors*, J.S. Held Perspectives (3 December 2025), also at oceantomo.com/insights/ai-as-ip-a-framework-for-boards-executives-and-investors; Malackowski, J.E., Carnick, E.T., and Ngo, D., *AI as IP™ Framework: A Practical Guide for SMEs to Classify, Protect, and Monetize AI Assets*, J.S. Held Perspectives (2026). [Exact publication dates and direct article URLs to be confirmed against the publisher record before final printing.]
3. Ocean Tomo, Intangible Asset Market Value study, year-end 2025 data. IAMV is calculated as market capitalization less net tangible asset value across index constituents, on a market-capitalization-weighted basis. The measure is a market-implied residual for a large-capitalization United States public-equity index and is not a national-accounting statistic. Constituent population, valuation date, weighting, and treatment of negative net tangible asset values are set out in the underlying study, held on file with the author. The fifty-year record and the regional analysis are presented in the companion paper by John A. Hudson of Ocean Tomo, delivered at this Forum.
4. Ocean Tomo / J.S. Held, *IP + AI Driving the Global Economy* (2026), working paper. The AI Value Capture Gap and the National Intangible Economy Readiness framework are analytical constructs of the author and of Ocean Tomo / J.S. Held. They are diagnostic instruments rather than established empirical metrics, and no replicable scoring methodology is asserted for either.
5. *AI as IP™ Framework: A Practical Guide for SMEs* (2026), Tables 1 and 2 (primary and secondary asset categories). Figure 4 follows those categories.
6. The empirical relationship between intellectual property institutions and foreign direct investment is contested and varies by sector, income level, and institutional quality. The proposition advanced here is limited: enforceability is one component of an investment decision, not an independent cause of investment.
7. "A Call for Collective Action on Cyber Defense," open letter, 27 August 2026, openai.com/collective-cyberdefense. Contemporaneous reporting confirms more than one hundred signatory organizations on the day of publication (Reuters, 27 August 2026; CNBC, 27 August 2026, reporting 116 entities; Axios, 27 August 2026). The quoted language is the letter's. The characterization that existing governance may not hold is the author's inference, not the letter's express conclusion.
8. Gates, W., "The Turbulent AI Era Is Here. The Choices We Make Now Are Critical," GatesNotes, 26 August 2026, gatesnotes.com/a-turbulent-ai-era-and-critical-choices-to-make.
9. Munich Re, "Insure AI — aiSure," munichre.com/en/solutions/for-industry-clients/insure-ai.html (accessed 2026), an insurance-backed performance warranty addressing specified financial losses or liabilities arising from AI errors or underperformance. Other specialty-market products are emerging; providers and terms vary.
10. World Intellectual Property Organization, technology transfer frequently asked questions, wipo.int/en/web/technology-transfer/faq, on institutional ownership of publicly financed research as a mechanism to encourage commercialization; WIPO, *Leveraging Public Research for Innovation and Growth* (reference paper, WIPO/IP/BEI/16), on the dependence of outcomes on institutional capacity, finance, absorptive capacity, and market demand. For a critical perspective on transplanting the United States model, see So, A.D., et al., "Is Bayh-Dole Good for Developing Countries? Lessons from the US Experience," *PLoS Biology* 6(10): e262 (2008).
11. United Nations Commission on International Trade Law, *UNCITRAL Model Law on Secured Transactions* (United Nations, 2016), chapters IV and V (registry and priority),

uncitral.un.org/en/texts/securityinterests/modellaw/secured_transactions; UNCITRAL, *Legislative Guide on Secured Transactions: Supplement on Security Rights in Intellectual Property* (United Nations, 2010). Lending secured by intellectual property can also be structured through assignment, company-level security, or contractual controls; a clear perfection and priority regime makes such lending more predictable and scalable rather than making it possible in the first instance.

12. Eligibility of data acquisition, cleaning, curation, and annotation expenditure under research and development incentives varies by tax system and by whether the expenditure is characterized as research, software development, data acquisition, or ordinary operating cost. The recommendation is that incentive definitions address the question expressly.
13. Japan Exchange Group / Tokyo Stock Exchange, "Action to Implement Management that is Conscious of Cost of Capital and Stock Price," request issued 31 March 2023, jpx.co.jp/english/equities/follow-up/02.html; English explanatory materials filed with the Financial Services Agency, 19 April 2023, fsa.go.jp/en/refer/councils/follow-up/material/20230419-03.pdf; first English follow-up confirming the price-to-book focus, 26 October 2023, jpx.co.jp/english/news/1020/20231026-01.html. The request applied to all companies listed on the Prime and Standard Markets, with particular attention directed to companies trading below book value. Attribution of any subsequent revaluation to the request cannot be isolated from contemporaneous monetary policy, currency movement, foreign capital inflows, index composition, and sector effects; see the companion paper by John A. Hudson for the evidence and its limitations.
14. ISO/IEC 42001:2023, *Information technology — Artificial intelligence — Management system*, iso.org/standard/42001; ISO/IEC 42006:2025, *Information technology — Artificial intelligence — Requirements for bodies providing audit and certification of artificial intelligence management systems*, iso.org/standard/42006, which specifies additional requirements to ISO/IEC 17021-1 supporting the competence, consistency, and reliability of bodies auditing and certifying AI management systems; NIST, *Artificial Intelligence Risk Management Framework (AI RMF 1.0)*, NIST AI 100-1 (January 2023); Regulation (EU) 2024/1689 (the EU AI Act), whose obligations take effect on phased schedules.
15. Commodity Futures Trading Commission, history of derivatives regulation before the CFTC, cftc.gov/About/HistoryoftheCFTC/history_precftc.html, on the founding of the Chicago Board of Trade in 1848 and the 1859 Illinois charter authorizing standardized grades and binding inspection.
16. UL, institutional history, ul.org/about/our-history, on the origins of electrical-safety testing following the 1893 World's Columbian Exposition.
17. Morningstar, corporate history, morningstar.com/company/history. Morningstar was founded in 1984; the five-star fund rating was introduced in 1985.