# Renewing Connecticut's Competitiveness in the AI Era

*A Strategic Brief*

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## Executive Summary

Connecticut's fiscal stability is masking a structural competitiveness problem. The State's balance sheet is genuinely strong. The Budget Reserve Fund is full; billions have been paid down against unfunded pension liabilities. But the surpluses feeding that progress rest disproportionately on volatile capital income from capital gains, dividends, interest, and rents that flow to a narrow band of high-income households, not on a broadly growing Connecticut economy. Over the last thirty-seven years, U.S. employment grew nearly 50 percent; Connecticut's grew roughly 2 percent. A stagnant economy will eventually reverse the fiscal progress: when market-driven revenue corrects, fixed long-term liabilities remain and could throw Connecticut again into fiscal deficits.

One linkage deserves singular emphasis at the outset: Connecticut's AI and quantum initiatives are one strategy, not two. The NSF Regional Innovation Engine award to QuantumCT delivers $15 million now; the remainder, up to roughly $145 million more over a decade, is contingent on demonstrated commercialization in defense, biotechnology, and financial services, the very markets now being rebuilt around AI. The future funding must be earned, not banked. A Connecticut that executes on applied AI keeps the largest federal innovation investment in its history; a Connecticut that does not will watch it lapse, milestone by milestone.

The question this brief addresses is not "What should Connecticut's AI strategy be?" It is broader: How does Connecticut renew its economic competitiveness, its capacity to generate leading firms, innovation, and rising economic opportunity, as artificial intelligence changes the sources of productivity, firm creation, and prosperity? *AI is only the enabling technology; the objective is growth, wages, new companies, a resilient tax base, and fiscal sustainability.*

Connecticut cannot pursue that objective by competing with Boston and New York on their terms. The state lacks the metropolitan concentration of talent and capital that wins the platform layer of the AI economy: frontier models, massive compute, and elite research labs. But the AI economy has a second layer. In the application layer, where AI is embedded in operating industries, value flows to proprietary data, deep domain expertise, regulatory knowledge, and physical assets that cannot relocate. Those are Connecticut's assets: Hartford's insurance and asset-management complex, the defense-manufacturing base anchored in Groton, East Hartford, and Stratford together with its statewide supplier network, and the biomedical capacity of the Yale–UConn–Jackson Laboratory consortium. Connecticut does not need to

build the AI brain; it needs to become the best place in the country to apply it, and the preferred place to found the companies that do.

The strategic distinction running through this policy brief is between AI *adoption* and AI *value capture*. Connecticut's industries will adopt AI regardless of state policy. The strategic question is where the economic value generated around that adoption accumulates: whether adoption by Connecticut incumbents creates Connecticut companies, capabilities, intellectual property, and high-wage employment, or whether the state achieves productivity gains while exporting the software revenues and jobs to vendors elsewhere. *Every intervention proposed here is designed to convert adoption into value captured in Connecticut.*

The strategy can be compressed into three words that also summarize three centuries of Connecticut economic history: *differentiate, don't imitate.*

The State's fiscal restoration—built on guardrails a bipartisan Legislature created, and the Lamont administration has faithfully enforced—is act one: complete, secure, and paying dividends long into the future. This policy brief is the blueprint for act two, using that foundation to build. It sets out the diagnostic, the strategy, and an execution plan: how the State can act as convener, de-risker, and anchor customer for an applied-AI ecosystem. Critically, it can do so largely by retooling vehicles it already possesses. It also reveals how a disciplined, capped carve-out from the current surplus can finance this strategic vision so that it strengthens, rather than weakens, the fiscal guardrails.

# I. The Diagnostic

**A deceptive prosperity.** Connecticut ranks near the top of states in household income, but the composition of that income matters. A disproportionate share arrives as capital income concentrated among a small number of wealthy households. That income inflates both the state's apparent prosperity and, through the tax system, its revenue. But the underlying labor economy tells a different story. Since 1989, Connecticut has added roughly 2 percent to its employment base against nearly 50 percent nationally. The state needed eighteen years to regain its March 2008 employment peak of 1,720,900 jobs—a threshold most states crossed a decade earlier—and recent data suggest the recovery remains fragile, with unemployment running above the national rate in recent months. Nor is the deterioration only quantitative: CCEA's analysis documents roughly two decades of eroding job quality, with high-wage technical and corporate roles steadily replaced by lower-paying positions. Connecticut is suffering a slow bleed in the composition of work that income averages conceal.[1]

Stated in competitiveness terms, Connecticut's problem is not fundamentally that it is behind in AI. It is that the state's extraordinary stocks of knowledge, institutional capability, industrial expertise, and human capital have not translated into economic dynamism: firm creation, employment growth, rising wages, and tax-base expansion. What makes this moment different is that AI changes the equation: it makes accumulated domain knowledge scalable in ways it has

[1]McKinsey & Company, *Overview of the Connecticut Economy: 1980–2014*; CCEA analysis of contemporary data confirms the continuing deterioration in the quality of Connecticut jobs, measured by average annual income relative to the national average.

never been. The assets Connecticut spent two centuries accumulating can now be amplified and monetized rather than merely maintained.

**The fiscal exposure.** The volatility cap and related guardrails have swept surplus revenue into paying down the State's massive pension liabilities by more than $10 billion in supplemental payments to date, an unavoidable medicine after decades of underfunding. Those same surpluses also allowed the State to fill its rainy-day fund. But this dynamic depends on continued surpluses. Those surpluses depend on capital markets, not the state's own economy; covering fixed, long-term liabilities with volatile, market-driven revenue is a structural mismatch. When a sustained market correction arrives, the externally dependent revenues stall, deficits return, the paydown of liabilities ends, and the guardrails' own achievement unwinds. Only growth in the underlying tax base, in Connecticut's own economy, prevents that reversal. The essential first response has been achieved: enforcing guardrails a bipartisan Legislature built, Governor Lamont has restored the state's fiscal foundation, faithfully, against every pressure to abandon the discipline. What this brief sets out is what that foundation now makes possible.

**The structural constraint.** Connecticut is a small state without a core metropolitan economy, positioned between two of the most powerful metros in the world. The modern data-driven economy rewards exactly the agglomeration Connecticut lacks; each year the state loses a large share of the graduates its universities produce, along with early-stage capital, to its neighbors. The gap is starkest in the AI economy's core occupation: by federal occupational data, New York employs roughly twenty thousand data scientists and Massachusetts roughly ten thousand; Connecticut employs fewer than one thousand. [CCEA: confirm current OES figures.] This is a structural fact: it predates every current officeholder by a generation. No realistic policy reverses it. Strategies that ignored that hard reality—whether elephant hunting, bidding wars for footloose firms, or generic technology funds—have necessarily failed for three decades.

**The adoption risk and the value-capture question.** Connecticut's anchor industries will adopt AI regardless of state policy. Insurers will automate underwriting and claims; manufacturers will embed AI in design and production; health systems will deploy it in diagnostics and operations. These are no longer conditional warnings. Tufts University's *American AI Jobs Risk Index* (2026) projects, over the next two to five years, job displacement of roughly 16 percent in finance and insurance and 16 percent in professional, scientific, and technical services—against an economy-wide average near 6 percent—with losses inside those industries falling hardest on entry-level analytical and administrative roles. Those are the two white-collar sectors in which Connecticut's employment is most heavily concentrated, in a state that has already lost roughly 25,000 insurance jobs. The Tufts projections are scenario-based and deliberately exclude AI's job creation; their direction, however, reinforces this policy brief's central claim. [CCEA: extract Connecticut-specific job- and income-at-risk figures from the published Tufts dataset and confirm the insurance-employment decline from CCEA data.] The critical question is where the value generated around that adoption accumulates. If the tools, vendors, and specialized workforce develop elsewhere, Connecticut absorbs the employment displacement while exporting the intellectual property, the vendor revenues, and the high-wage jobs. If they develop here, disruption converts into a new export industry. Displacement arrives regardless of state policy; only value capture is optional. The state's current domain-knowledge

advantage is also perishable: if Hartford's insurers buy their AI stack from New York vendors for a decade, the domain expertise migrates into those vendors and the advantage departs.

**Existing assets.** Three recent developments give the strategy a foundation. The bipartisan AI legislation signed in June 2026 provides regulatory certainty and a legal sandbox that founders in most states still lack. The NSF Regional Innovation Engine award to QuantumCT of $15 million initially, up to $160 million over a decade, alongside a $121 million state pledgeprovides a federally backed platform in next-generation computing tied directly to Connecticut's industries. And the State already possesses the institutional machinery this blueprint requires: Connecticut Innovations as an equity-investing quasi-public, the Manufacturing Innovation Fund, and an established workforce-development apparatus. The task is not to build new institutions but to point existing ones at a sharply defined target — and to strengthen their capacity for fast action.

## II. The Strategy: Winning the Application Layer

**The historical pattern.** The McKinsey Global Institute's recent study of American competitiveness, *At 250: Sustaining America's Competitive Edge* (March 2026), describes the nation's economic history as a succession of chapters—agricultural, industrial, scientific, digital—in which American advantage was repeatedly reinvented rather than preserved, with each chapter's leaders planting the seeds of the next. Connecticut's own history is a miniature of that national pattern: the precision manufacturing and invention culture of the armory tradition; insurance and financial services; aerospace and defense; biomedical science; and now, potentially, domain-specific applied AI. It is telling that when MGI's authors reached for their founding example of a world-leading American industry cluster, they chose one from this state, the hat makers of Danbury in the 1800s, before Detroit's automakers and Cambridge's Kendall Square. Connecticut does not need a new economic identity. It needs the next expression of its historical identity: specialized knowledge applied to difficult physical, financial, and scientific problems. Applied AI fits that history precisely.

The lesson of that history is equally precise. Matching New York's $500 million Empire AI consortium or Massachusetts' $100 million AI Hub dollar-for-dollar would purchase an inferior copy of a model those states are better positioned to run. The regional economics literature that points to smart specialization and adjacent capabilities, and Connecticut's record, point in the same direction: Regions without scale win by differentiating into specialized capabilities the leaders cannot quickly acquire. Connecticut became the patent capital of nineteenth-century America and the insurance capital of the continent through specialized depth, not size. *Differentiate, don't imitate*.

*The strategy is therefore vertical, not generic. State resources should concentrate exclusively on three application domains where Connecticut holds defensible advantages.*

**Insurance and actuarial AI.** Underwriting, claims, and risk modeling built on decades of proprietary data and the deepest actuarial talent pool in the country, in a state whose insurance regulator and new AI framework offer a uniquely clear and predictable regulatory environment.

**Defense and advanced-manufacturing AI.** Design, predictive maintenance, supply-chain, and production applications for an industrial base including Electric Boat, Pratt & Whitney, Sikorsky, and the thousands of precision manufacturers and suppliers that sustain them, whose facilities, clearances, and controlled processes cannot relocate. The national context enlarges this vertical's significance: as geopolitical competition intensifies and Washington prioritizes defense industrial-base resilience and trusted domestic production, Connecticut should position itself as a national test bed for trusted AI in strategically important industries. This positioning connects the state's strategy to national economic security and opens federal funding channels well beyond state economic development. That positioning also faces an immediate, dated test: new federal cybersecurity certification requirements now attach to the Navy's latest submarine contracts and flow down through the entire Connecticut supply chain on deadlines beginning in late 2026, a challenge, and an opportunity, taken up below in Section III.D.

**Bioscience and genomic AI.** Discovery, diagnostics, and genomic medicine built on the sequencing capacity, clinical depth, and translational infrastructure of the Yale–UConn–Jackson Laboratory consortium, a capacity the state has funded but not yet fully activated.

Two further assets reinforce all three verticals. The first is research breadth. The state's universities map onto the strategy far beyond bioscience: Yale's strength extends across computer science, applied AI, quantum science, and public health, while UConn contributes engineering depth, critical biomedical capabilities, and one of the nation's leading actuarial science programs, a direct pipeline into the insurance vertical. The intellectual base for domain-specific AI is already resident in the state. The second is convening density. Connecticut lacks metropolitan scale, but it possesses something the megaregions do not: world-class universities, insurers, hospitals, defense manufacturers, and the state government itself all within roughly an hour of one another. Applied AI is fundamentally a coordination problem, matching data holders with model builders, researchers with production floors, regulators with innovators. Coordination is precisely what this proximity enables. The convening role this blueprint assigns the State is executable in Connecticut in a way it would not be in a sprawling metro.

Stated as a market position: Connecticut should become the preferred jurisdiction in which to found, build, and scale AI companies serving regulated, knowledge-intensive, and strategically important industries where it has clear competitive strength. This policy brief points to insurance, healthcare, aerospace and defense, financial services, and bioscience, the business sectors in which trust, domain depth, and regulatory clarity are decisive, and in which Connecticut's assets are unmatched.

**Convergent evidence from the market.** The economics of this position are no longer theoretical. When Salesforce's August 2026 results upended Wall Street's assumption that AI models would commoditize the software incumbents, analysts led by Yale's Jeffrey Sonnenfeld drew the general lesson in CNBC: as machine intelligence grows abundant and cheap, it is the models that are being commoditized, and pricing power migrates instead to the holders of "the scarce assets that intelligence cannot function without." That is, above all, trusted proprietary data, which deepens in value as each generation of AI agents draws on it. That is the application layer's logic stated at firm scale; this brief states it at regional scale. Connecticut's anchor

institutions are precisely such incumbents, and the state's task is to ensure that the value their data creates is captured by Connecticut companies.

The QuantumCT award reinforces rather than competes with this strategy. The critical interdependence with AI becomes clear from the structure of the NSF award itself, which must be understood precisely. The initial award is $15 million; the remainder, up to roughly $145 million more, is released only against commercialization milestones in defense, biotechnology, and financial services. These are the very same three domains being rebuilt around AI. Future awards will be earned; they are not banked. Celebrating the full figure as if secured misreads the award's structure and understates the work required to keep it. In practice, quantum-enabled capabilities will be designed, optimized, validated, and commercialized through AI: AI software is the layer through which quantum advances reach working applications and paying customers. A state without a functioning applied-AI ecosystem will therefore struggle to demonstrate the commercial traction the milestones require. AI execution is, in practice, a precondition for keeping the largest federal innovation investment in Connecticut's history.

**A stress test for completeness.** MGI identifies five prerequisites for American competitiveness in the coming era: an AI-fluent workforce, sustained long-term investment, sufficient and reliable power, modern infrastructure, and national economic security. The same five apply at state scale; this strategy addresses each: talent through the fluency agenda of Section III.C; investment through the leveraged-capital architecture of Section IV; power and infrastructure through the applied-AI infrastructure layer of Section III.D; and economic security through the trusted testbed positioning of the defense vertical. A strategy that omitted any of the five would fail in execution; this one is built against all of them.

# III. The Execution Blueprint

The State's role is convener, de-risker, and anchor customer, not a general contractor. Each element below is designed to run through existing institutions with new mandates, and each is judged by a single test: does it convert AI adoption into AI value capture for Connecticut? None of it is self-executing. The strategy requires improved performance along multiple vectors at once, from State agencies and quasi-publics, from the universities, and from the anchor firms themselves, and the governance and measurement disciplines of Section IV exist to make that improvement visible, and to enforce it.

## A. Building the startup ecosystem

**The Connecticut Applied AI Data Commons.** The scarcest input for an applied-AI startup is not capital but high-quality, industry-specific training data. Connecticut's anchor institutions hold decades of it. The market now prices that scarcity explicitly: the lesson national analysts drew from the Salesforce results is that a falling cost of intelligence raises the value of incumbent data. The State should establish the legal and technical architecture through which qualified startups and research teams gain controlled access to the value embedded in those datasets: federated learning, synthetic data generation, secure computing environments, and controlled model access, under uniform security, privacy, and liability standards. The design principle is that the competitive asset does not require moving the underlying data. Insurance,

health, aerospace, and defense data raise obvious issues of privacy, competitive sensitivity, HIPAA, and export control, and the Commons is engineered so the data need never leave its holder's control. Anchors receive early access to tools built on their own problems at a fraction of bespoke cost; startups receive the one asset they cannot buy; and the trusted architecture itself becomes a differentiator for a state specializing in AI for regulated, trust-intensive industries. The Attorney General's office and industry legal counsel should be engaged from the outset.

**The regulatory sandbox as a development tool.** The June 2026 legislation creates a sandbox; the State should operationalize it as a recruiting instrument. A startup whose model clears sandbox review would receive documented compliance standing—that is, explicit evidence, marketable to investors, that its product operates lawfully in a jurisdiction with an actual legal framework. Whether and how such standing can be formalized requires legal review before any public commitment, but even an administratively streamlined version gives Connecticut a pitch no neighboring state can currently make: *build here, where the rules are written.*

**Vertical co-investment through Connecticut Innovations.** Rather than creating a new fund, the State should ring-fence a dedicated applied-AI allocation within Connecticut Innovations, restricted to the three verticals and governed by two disciplines: state capital deploys only alongside qualified institutional or corporate co-investment at a minimum of two private dollars per public dollar, and deployment uses standard return-generating instruments through equity and convertible notes so the taxpayer participates in the upside. There is history here worth honoring: Connecticut pioneered this model, with CI's lineage running to the Connecticut Product Development Corporation of 1972, arguably the nation's first state venture-investment entity. This blueprint gives that pioneering institution what the model needs to perform at scale: adequate capital, a sharply focused mandate, and the governance disciplines of Section IV. This positions CI to play a critical, constructive role in the strategy. CI already possesses the statutory authority, the investment staff, and the portfolio infrastructure; what changes is the sharpness of the mandate and the scale of the resources behind it. No generic SaaS; no consumer technology.

## B. Turning the incumbent base into an entrepreneurial asset

Most regions attempting to build startup ecosystems spend heavily on accelerators and generic mentoring. Connecticut already possesses the two assets those programs try to simulate and cannot: difficult operational problems and sophisticated customers. The elements below are designed to put both to work.

**The Connecticut AI Anchor Customer Compact.** A voluntary compact among the state's anchor institutions—its insurers, aerospace and defense firms, health systems, universities—in which each participant identifies a small portfolio of real operational problems each year and opens them, under appropriate confidentiality and security arrangements, to Connecticut startups and university teams. The mechanism runs: industry problem → secure data and context (via the Data Commons) → startup or research team → pilot → first customer → reference customer → scale. Anchors gain bespoke solutions to problems they have already prioritized; startups gain the referenceable customers that are their single highest hurdle; the

state gains new firms whose founding reason is Connecticut's industrial base itself. The Compact requires convening authority more than money. It is the clearest expression of the State's role, and of why convening density matters.

**AI Innovation Vouchers.** Mid-sized manufacturers and providers, those firms large enough to implement AI but too small to retain national consultancies, are the natural first customers for Connecticut's AI vendors. Such businesses are numerous: the state's industrial base includes thousands of small and mid-sized precision manufacturers and suppliers in nearly every town, for whom AI adoption will increasingly determine competitiveness. A voucher program in the $35,000–$75,000 range, redeemable only with Connecticut-based AI firms, universities, or colleges for readiness audits, pilot deployments, and cybersecurity-certification readiness and remediation, simultaneously upgrades the industrial base and funds the local vendor ecosystem. The Manufacturing Innovation Fund provides a natural administrative home, and voucher programs of this design have an established international track record.

**The State as first customer.** Alongside the private Compact, the State and its quasi-publics should establish a structured pilot program directing a defined share of their own AI adoption, including administrative automation, cybersecurity, and infrastructure optimization, toward qualified Connecticut vendors through streamlined pilot procurement, within existing procurement law. The goal is reference customers and deployment evidence, not set asides.

**Quantum–AI convergence grants.** A dedicated grant pool, jointly administered with QuantumCT, for ventures pairing quantum research capacity with applied-AI firms on specific bottlenecks in financial modeling, materials, and genomic analysis. This ensures federal quantum money generates commercial demonstrations, the currency critical to NSF's milestone reviews, rather than remaining confined to laboratories. Critically, positions the state to earn additional federal dollars.

## C. Talent: the most AI-fluent industrial workforce in America

The emerging national evidence is that demand for AI *fluency*, the capacity to work with, direct, and audit AI within a domain, is growing several times faster than demand for technical AI specialists, and overwhelmingly outside traditional STEM roles. That distinction is Connecticut's opening. The Tufts projections add urgency: within finance and insurance, expected losses concentrate in entry-level analytical and administrative roles, the very rungs by which careers in these industries begin, and Connecticut's defense-manufacturing production floors, among the least displaceable work in the economy, sit beneath corporate and analytical layers that face the same white-collar exposure. A fluency strategy is how the state converts that exposure into advancement rather than exit. The state cannot out-produce Massachusetts, New York, or California in generic AI engineers, and should not try. It can instead set a sharper aspiration: America's most AI-fluent insurance and actuarial workforce; America's most AI-fluent aerospace and defense manufacturing workforce; one of America's most AI-fluent biomedical and genomic workforces. Fluency compounds on domain mastery. And domain mastery is what Connecticut's workforce already has. The state does not need generic prompt engineers; it needs people fluent in both aerospace tolerances and machine learning, both claims adjudication and model auditing. And it needs them to stay.

**A Connecticut AI Extension Service: Reviving a Connecticut invention.** Connecticut did not borrow the extension model from Washington; it invented the model's foundation. The nation's first agricultural experiment station was established in this state in 1875, more than a decade before the federal Hatch Act and nearly four before the Smith-Lever Act created federal extension. Moreover, the State operates its experiment stations to this day. It was research at the Windsor station that developed shade-grown tobacco, turning public science into a world-leading Connecticut industry: the original demonstration that publicly funded expertise, carried onto private working land, creates private prosperity. The AI Extension Service applies that same Connecticut invention to the factory floor and the claims office: experienced practitioners embedded in regional chambers and manufacturing consortia whose job is to walk the floor, identify bottlenecks, and connect firms with Connecticut tools, vendors, and training. Practitioners, not academics; implementation, not reports.

**Stackable vertical micro-credentials.** UConn, the CSCU system, and community colleges, in partnership with anchor employers, should build six-month credentials tied to the three verticals—genomic data pipeline management designed with Jackson Laboratory, AI-assisted quality assurance designed with the aerospace supply chain, and cybersecurity credentials aligned to defense certification requirements, building on the cyber-and-AI training pipelines already emerging in Bridgeport's high schools and colleges—with participating anchors committing to interview program completers.

**Retaining the graduates Connecticut already produces.** Every year the state's universities—Yale, UConn, Quinnipiac, and others—graduate exceptional technical and professional talent, much of which departs for Boston and New York. Retention is the cheapest talent strategy available: the people are already here. The State should fund a vertical placement fellowship pairing graduating students with Connecticut AI startups and anchor-company AI teams for funded first-year placements, and Connecticut Innovations should operate a founder-in-residence track that gives graduates building companies in the three verticals early capital, sandbox access, and anchor introductions. The measure of success is simple: a rising share of each graduating class still working or founding in Connecticut three years later.

**Upskilling the incumbent workforce.** Existing workforce funds should prioritize elevating current machinists, adjusters, and technicians into roles overseeing, auditing, and directing the AI tools entering their workflows. Honest framing matters: these technologies will change these jobs regardless of state policy. The State's commitment is that Connecticut's incumbent workers are trained into the higher-value roles the transition creates rather than displaced by it.

## D. The Applied AI Infrastructure Layer

An application-layer strategy does not require hyperscale data centers, and Connecticut should not attempt to become Northern Virginia. But even applied AI runs on physical foundations of secure compute, cloud access, connectivity, cybersecurity, and reliable power for increasingly compute-intensive industrial and scientific work. A strategy silent on those foundations would fail its own stress test. Here are four elements:

**Brokered secure compute — and the niche the region cannot serve.** The economics of research computing point decisively away from go-it-alone facilities: Yale itself, after weighing

scale and cost, abandoned its aspiration for an on-campus high-performance computing center and joined the multi-university consortium at the Massachusetts Green High-Performance Computing Center in Holyoke. That decision is instructive twice over. It confirms that shared and brokered access, not new construction, is the right model for generic research compute. Connecticut institutions and firms should negotiate consortium and cloud access rather than duplicate what Holyoke provides. It is also a quiet warning that compute gravity, and the activities that cluster around it, is drifting toward Massachusetts. Connecticut's answer is not to chase generic capacity but to own the niche a shared out-of-state academic facility cannot serve: secure, compliance-grade compute environments for regulated and controlled workloads—the ITAR-constrained, clearance-bound, HIPAA-grade work of defense manufacturers, insurers, and health systems. That niche is coterminous with the three verticals and the trusted test-bed positioning. The gap demanding immediate attention is UConn: the state's flagship public research university currently has no comparable shared-compute arrangement, leaving it, and every Connecticut researcher, graduate student, and startup that depends on it, computing at a structural disadvantage to regional peers. Securing consortium membership or equivalent pooled access for UConn is likely the cheapest, fastest single action in this entire blueprint, is well within reach even under current budget constraints precisely because the consortium model exists to spread costs, and is a near-precondition for the computational work the QuantumCT Engine will demand. The State should broker pooled, security-appropriate compute access, working through Connecticut Innovations, the university systems, and QuantumCT, for Connecticut startups, research teams, and mid-sized firms, aggregating the state's demand to convert many small buyers into one significant customer.

**Power on Connecticut's terms and the in-state siting question.** Compute-intensive growth ultimately requires electricity, and the siting lesson is already on display: the regional consortium's facility sits in Holyoke in large part because of inexpensive hydropower. Power economics decide where compute lives, which is precisely why Connecticut's position matters. The state is a substantial net exporter of power: nearly half the kilowatts generated in Connecticut's plants serve load outside the state, and that is with the Killingly natural-gas generation plant operating only as a peaker. Meanwhile, a growing number of states, under grid and ratepayer pressure, are pausing or restricting new data centers, as both Texas and New York have already imposed moratoriums. This opens a selective window for a state that exports power rather than begs for it.

The trusted-compute niche this strategy claims makes the siting question strategic rather than optional: secure, compliance-grade workloads cannot run in a shared out-of-state academic facility, so a moderate in-state secure data center may prove critical to the long-term success of the combined AI–quantum strategy. Preliminary assessment suggests at most two viable candidate locations, each with a real constraint. The Millstone complex offers unmatched carrier power, but absent a natural-gas supply or new backup technology it cannot today guarantee continuous power, as the original proposal to rely on the grid was rejected, leaving its viability uncertain even if the site's third reactor location were reactivated. The Killingly plant is fully operational and could support a moderate scale facility but currently runs only as a peaker. The near-term recommendation is therefore a formal State siting and feasibility study, looking to power guarantees, grid effects, backup architecture, security certification, and community

terms. When the strategy's compute demand materializes, Connecticut's answer is a costed plan rather than a scramble. Throughout, ratepayer protection remains an explicit, non-negotiable design principle: any facility the State courts must carry its own energy costs and grid contributions, because an AI strategy that raised household electric bills would forfeit the public legitimacy every other element of this blueprint depends on.

**Cybersecurity as market access — the CMMC test case.** The three verticals—defense, insurance, biomedical—this strategy serves are precisely those where cybersecurity is a condition of participation, and in defense that condition now carries a date. The July 2026 submarine contract brings Cybersecurity Maturity Model Certification (CMMC) requirements that flow down from Electric Boat through its entire supply chain, phasing into solicitations from late 2026 and into all contracts by late 2027. The arithmetic is unforgiving: small firms typically need 12–18 months to prepare; industry analyses put certification costs at roughly $75,000–$300,000 for mid-tier certification and $500,000 or more at the highest tier; 70 percent of Connecticut's manufacturers employ fewer than twenty workers, 35 percent of their workers are over 55, and industry estimates suggest as much as a third of the supply chain may fail to certify in time. The consequence is equally concrete: the contract is expected to drive thousands of new hires, nearly a third of Electric Boat's workforce already lives in Rhode Island, and certification-ready states will capture the work and the hiring that unprepared Connecticut firms forfeit. The remedy runs through mechanisms this blueprint already contains. Innovation vouchers should explicitly cover CMMC readiness assessment and remediation for small suppliers. The extension service's inaugural mission is certification preparation on the factory floor. Most powerfully, the trusted-compute architecture of this section is the affordable path to compliance: rather than each twenty-person shop building a half-million-dollar security program alone, small suppliers subscribe to shared, certified, compliance-grade environments the State brokers. This transforms the certification cliff into the anchor tenant for Connecticut's secure-infrastructure niche. Regional public-private efforts with the Maritime Industrial Base and federal cybersecurity programs are already building low-cost cyber and AI training pipelines centered on Bridgeport's high schools, colleges, and universities; the State should scale that model and apply the leveraged-capital doctrine to the federal cyber and industrial-base funding streams attached to it.

**Grid and permitting readiness.** Where infrastructure investments are needed in grid interconnection and secure facilities, the State should pre-clear the administrative path: coordinated permitting and defined timelines, so that when an anchor or a startup is ready to build, Connecticut's answer arrives in months, not years.

# IV. Financing and Governance

**The fiscal logic: productivity as the bridge.** The guardrails-era strategy embracing capped spending, funding the pensions, and filling the rainy-day fund was a necessity, and it has worked: a bipartisan Legislature built the guardrails, and the Lamont administration has enforced them with rare discipline. That achievement is complete, it is secure, and it will pay dividends long into the future. But it is a maintenance strategy, not a growth strategy—act one, not act two—and its own sustainability now, critically, depends on economic growth. The economic chain this policy brief proposes to finance is explicit: AI capability in the three

verticals → productivity growth in Connecticut firms → stronger firms, higher wages and profits → new investment and firm creation → a broader, more diversified tax base → greater fiscal resilience. Productivity is both the signal and the driver of competitiveness; it is also the only durable answer to a revenue system currently leveraged to capital markets. A one-time, tightly capped appropriation from the current surplus on the order of $100–150 million, structured as investment capital rather than program spending,represents less than 2 percent of what the guardrails have already delivered to the pension funds. And unlike the $500 million the State has set aside to buffer the damage of federal funding cuts to Connecticut households, workers, and businesses—a smart, critical defensive reserve—this appropriation is offense: an investment in building a better future for all three: households, workers, and businesses alike. It is not a raid on the effort to reduce liabilities; it is the hedge that protects the ability to fund those liabilities. Only a strengthening Connecticut economy, and the state-based tax stream it generates, keeps long-term liabilities funded through the next market correction. The mechanics of the appropriation relative to the volatility cap and spending cap require careful design, and that design should be explicit in any legislative proposal.

**The leveraged-capital doctrine.** QuantumCT demonstrated the model this entire strategy should follow: the State's $121 million pledge helped win a federal award of $15 million now, potentially worth up to $160 million, but that requires Connecticut to deliver on the required sequential performance. State dollars deployed as magnets for federal and private multiples, never as substitutes for them. The CI allocation requires a minimum of two private dollars per public dollar, converting $100–150 million into a $300–450 million deployment engine: the trusted test-bed positioning targets defense and federal innovation funding streams; the convergence grants exist to unlock NSF milestone tranches. Under this framework, the relevant measure of the State's appropriation is not its size but its multiplication.

**Return-generating instruments.** Wherever possible, capital deploys through instruments that deliver taxpayer upside: equity and convertible positions held by Connecticut Innovations, and success-contingent tax credits for adopting firms that activate only upon verified productivity gains or net new employment. The State pays when the economy actually grows — because then the State is also a beneficiary, through stronger, more stable tax revenues.

**Governance.** Public investment vehicles fail through politicization; structure must insulate this initiative. Implementing legislation should create an oversight investment committee of independent financial professionals, university technology-transfer leadership, and anchor-industry technical officers, operating under a mandate set in the statute, naming the three verticals, the match requirement, and the instrument types, and requiring the committee to provide full, granular reports to the General Assembly. The Legislature defines the mandate and audits performance; the committee executes within it. Capital releases in tranches against milestones, on the model NSF itself is applying to QuantumCT: seed support tied to entry into a corporate or sandbox pilot; follow-on matching released only upon a paying engagement with a Connecticut anchor, the very engagements the Anchor Customer Compact is designed to generate.

**Measurement.** The evaluation metric is not startups funded or ribbons cut. It is the renewal of Connecticut's competitiveness, measured on the dimensions that define it: productivity growth

in the three verticals relative to national industry benchmarks; net new firm formation attributable to the ecosystem. This is not "how many Connecticut firms adopted AI," but how many new Connecticut companies were created because our existing industries supplied the problems, domain expertise, data, talent, and first customers from which they could emerge; wage growth relative to the national average; the share of state income tax paid by wage income versus capital income; graduate retention three years out; and vendor revenue retained in-state. CCEA proposes to publish an annual public assessment against these benchmarks, so that the Legislature and the public can see, in the same unsparing terms this brief applies to the past, whether the strategy is working. National analyses now explicitly recommend that states establish standing AI workforce and risk assessment capacity; the annual assessment provides Connecticut exactly that function, already designed and already accountable.

# V. Conclusion

The alternative to acting is not the status quo; it is a slow bleed. Connecticut's anchor companies will adopt AI on someone else's technology. If it is not built here, the state absorbs the displacement, exports the value, and watches its one durable advantage, the accumulated domain knowledge, migrate into other states' firms. On current structure, that path leads back to the very deficits the guardrails were built to escape.

The elements of the path to Connecticut's competitive success in the AI–quantum competition already exist: anchor industries with non-replicable assets, a research base that spans the verticals, a regulatory framework its neighbors lack, a federal quantum platform won in national competition, functioning investment institutions, and for the first time in a generation the fiscal capacity to act. What has been missing is a strategy that faces the state's structural constraints honestly and concentrates resources where Connecticut can actually win.

The deepest opportunity in this moment is easy to miss. Connecticut's problem was never a shortage of knowledge; it was that two centuries of accumulated actuarial, industrial, and scientific expertise stopped translating into dynamism. AI changes that equation, because it makes accumulated domain knowledge scalable: the state's historical comparative advantages can now be amplified and monetized in entirely new ways rather than merely defended. The principle is older than the technology, and it summarizes both Connecticut's past and its path: *differentiate, don't imitate*. For thirty-seven years, the very structure of the economy worked against this state. The structure of the AI economy's application layer does not. That alignment is the opportunity — and it is not a standing offer. New York and Massachusetts are already moving, at scale. The states that act in the next few years will shape this economy; the rest will inhabit an economy shaped by others. Connecticut can lead, or Connecticut can be captive. The urgency is now.

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