Response for a 2025 National Artificial Intelligence (AI) Research and Development (R&D) Strategic Plan

Docket ID No. NSF-2025-OGC-0001

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About Permion

Permion Inc. is an emerging AI deep technology infrastructure company. We have invested 200,000 developer hours in building our flagship product: the first 100% American designed **Neurosymbolic AI Processor** and its novel instruction set architecture. It enables a new generation of neurosymbolic foundational AI models, provides many operational and performance advantages, called **Large Graph Models (LGM).** The LGM can take the Large Language Model (LLM) concept a leap-ahead forward. Our AI processor is named after the theory of X-Machines in which data can reshape computing, and is called the X-Machine Virtual Machine (XVM™). Our full stack AI provides a native Prolog and Logtalk just-in-time compiler, Python, Java, C/C++ drop-in compatibility, fully supporting and integrating parallel, distributed, **Agentic-AI**, neural and logical capabilities. The company offers a full-stack approach to AI, coding analyzers, coding tools, and industry-standard compliance to popular developer environments as well as ISO Standards (ISO 24707) Common Logic. **The company plans to create AI chips** in the future, based on the design of its **Neurosymbolic AI Instructure Set Architecture (ISA).**

More about Permion is at https://permion.ai/

Response

We are honored to contribute our viewpoint and response once again to the Office of Science and Technology Policy (OSTP), the Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO), on how to reshape the National Artificial Intelligence Research and Development Strategic Plan (2023 Update). **Our team has specifically benefitted in our own history of development from the unique NSF sponsored i-Corps and acknowledge its value and importance to grass-roots companies in the USA.** *Therefore, we bring an informed perspective to the public/private mixture for synergy and investment.*

Our goal in this work is to secure the United States' position as the unrivaled global leader in AI through a new strategy to create and empower a focused Private Public Academic Command (PPAC) partnership-led research and development (R&D) initiatives over the **next 1 to 3 years (12 to 36 months)**, and then sustainment in the foreseeable future. This would include the **NSF, NASA, DARPA, IARPA, FFRDC's, National Labs and a whole of government strategy**. However, to understand the urgency of the situation, and the importance of private companies, their innovation, their investment and the opportunity together, we must recognize and restate the issues of the adversary. Therefore, **our recommendation for a 2025 National Artificial Intelligence (AI) Research and Development (R&D) Strategic Plan recommends several policies to increase the capital supply to innovators and to ensure investment integrity while mitigating adversarial risks.** To contextualize what we mean be adversarial risk and its critical importance now, we explain, first, what foreign adversaries are achieving today to thwart US initiatives, and secondly, the serious consequential losses and impacts to the US, shown below:

Foreign Competitor Strategy	Estimated Competitor Wins relative to the US
Avoids 10–25 years of R&D	$500M–$1 Trillion savings per tech domain (e.g., AI models, semiconductors, infrastructure). Example: Theft of ASML IP.
Dual-Use Military/Commercial	Untraceable tech reused for Chinese PLA, surveillance, drones, etc. Example: Harbin BZK-005 UAV.
Achieves Market Dominance	Leverages stolen IP to flood global markets with subsidized clones. Example DeepSeek AI
Undermines U.S. Confidence	Reduces investor appetite in frontier deep tech sectors. Example: Foreign investors hindering and delaying Palantir IPO.
Weakens Export Controls	Exposes regulatory gaps (CIFIUS, ITAR, BIS) and disincentivizes compliance. Example: Huawei–3Com Acquisition Strategy.

We summarize the top three impacts to the United States.

Impact to US Strategy	Estimated Loss to US
Time to Replace Lost Capability	5-10 year lag against competitor due to reinvention and IP chilling effects
Financial Loss	$25B–$500B annually (IP value lost, startup destruction, defense tech delay) providing the adversarial foreign competitor with a time advantage.
National Security Risk	$5 Trillion or more – adversary leapfrogging in hypersonic capability, weapons, defenses, AI superiority, synthetic biotech, RF systems, covert communications, cyber and information operations.

Our first agenda here is to critique the prior plan as requested in the RFI. We provide a structured set of 6 key tables, first the critique, and the rest sharing our comments to enable a whole of nation US path to AI superiority:

TABLE-1: Critique of National Artificial Intelligence Research and Development Strategic Plan (2023 Update)
TABLE-2: Strategic Reforms for US Investment Policy Incentives
TABLE-3: Investment Regulatory Policies Governing Funder Integrity
TABLE-4: Governance Policies to Ensure Investment Integrity
TABLE-5: Direct To Company Capitalization Policies
TABLE-6: Public Private Academic Command Partnerships for Capitalization

Critique of the National Artificial Intelligence Research and Development Strategic Plan (2023 Update)

The original document and its update reads more like an academic workshop summary or a grant-speak compilation than a decisive strategic document built to drive implementation for US AI superiority at speed. Here are our critiques:

- **Overuse of passive voice**: Nearly every strategy reads as "research is needed," "it is important to consider," or "steps should be taken." This avoids assigning responsibility or action.
- **Redundant phrasing across documents**: Key themes like "trustworthy AI," "interdisciplinary research," and "public-private collaboration" are repeated almost verbatim across strategies without depth.
- **Lack of narrative structure**: Strategies are often listed as flat bullet points or vague frameworks rather than being logically sequenced with problem → method → expected impact.

The hyperbole masks a lack of real accountability. While trying to signal ambition, it instead evokes skepticism—especially among technical or operational communities accustomed to measurable outcomes. Without clear definitions, these terms become vessels for political consensus rather than scientific precision or engineering outcomes. Here are some illustrative phrases:

- Phrases such as:
  - "Generational opportunity to lead the world in AI."
  - "Ensuring equity, safety, and resilience in all systems."
  - "AI will contribute $11.5 trillion to global GDP."
- Grand claims about ethical leadership or innovation without backing them up with **hard deployment metrics**, **milestone frameworks**, or **technology readiness gating**.
- **"Trustworthy AI"**: Never quantified, operationalized, or measured. Is it interpretability? Is it fairness by parity? Is it adversarial robustness?
- **"Sociotechnical Systems Design"**: Used extensively, yet undefined. No architecture, no process, no reference implementation.
- **"Public good," "equity," and "resilience"**: Used as moral signposts rather than operational criteria.
- **"Human-AI teaming"**: Described in theory but no examples given from real deployment (e.g., in combat, cockpit automation, or disaster zones).

The strategies appear disconnected from the national security and space operational communities where AI field performance is most crucial. This lack of grounding risks irrelevance for high-priority mission execution. We summarize our full criticisms of this plan in the light of prefatory critiques, for each strategy in the table below.

TABLE-1: Critique of National Artificial Intelligence Research and Development Strategic Plan (2023 Update)		
Strategy	Examples from Document	Failure or Risk Points
Strategy 1: Fundamental AI Research	Development of general-purpose AI systems, digital twins, federated learning.	Vague goals with overlapping lines of effort; Lacks prioritization or funding discipline; Inaccessible to private innovators; Does not address deployment velocity
Strategy 2: Human-AI Collaboration	Human-AI teaming models, metrics for performance, trust calibration.	Overfocus on theory and models, not real systems; Human-in-the-loop often symbolic, not effective; Risk of overloading users with cognitive burden
Strategy 3: Ethical, Legal, Societal Implications	Sociotechnical design, AI Bill of Rights, equity and fairness research.	Idealistic goals but lacks enforceable mechanisms; Promotes ethics frameworks without operational clarity; Sociotechnical jargon shields lack of efficacy
Strategy 4: AI Safety and Security	Red teaming, safety-by-design, neurosymbolic verification.	Safety standards without testbeds or funding paths; No integration with defense-grade evaluation; Unclear threat prioritization or response playbooks
Strategy 5: Shared Public Datasets	NAIRR platform, federated data access, synthetic dataset generation.	Over-engineered, academic-heavy frameworks; Ignores real-world compute/data asymmetries; Privacy versus utility tradeoffs left unresolved
Strategy 6: AI Standards and Benchmarks	ISO/IEC AI standards, AI risk frameworks, environmental metrics.	Standards risk ossification and overregulation; No feedback loop for innovation under dynamic conditions; Emphasis on fairness metrics without real-world linkage
Strategy 7: AI Workforce Needs	AI K-12 training pipelines, AI scholarships, CHIPS and Science Act provisions.	Training pipelines assume resources not equitably distributed; Risk of subsidizing ineffective academic programs; No proof of ROI from fellowship programs
Strategy 8: Public-Private Partnerships	NSF I/UCRC programs, prize competitions, civil society partnerships.	Prone to institutional capture by large firms; Weak governance in PPP

		execution; Lacks incentive alignment for precompetitive contribution
Strategy 9: International AI Collaboration	OECD recommendations, G7 standards, bilateral AI research exchanges.	Opens avenues for adversarial exploitation; No enforceable boundaries in global data flow; Risk of technology leakage masked by diplomacy

Strategic Recommendations to Reshape a New Investment Incentive Plan

Our **recommendations for US investment policy reforms is directed to incentivize funders** and will ignite the American way to success.

TABLE-2: Strategic Reforms for US Investment Policy Incentives

#	Strategic Objective	Key Actions and Recommendations
1	**Proactive Strategic Investment (PSI)**	Transition passive investor postures (awaiting pitches) to precise, actionable active mission relevant investments. China, for example, actively pursues helping companies whereas in the USA investors largely sit back and operate on stimulus-response actioning – they miss out on proactive value in targeting.
2	**Realistic Milestones and Accountability**	Replace hyperbolic claims with concrete, milestone-based outcomes.- Ensure annual progress reports reviewed by independent experts.
3	**Federal AI Deployment Milestones**	Federally funded AI projects must reach TRL 5 within 12 months, and TRL 7 within 24 months.- Conduct required real-world pilots in defense, civilian emergencies…
4	**Establishment of AI Fusion Labs**	Create 5–10 AI Military/IC and Commercial Fusion Labs jointly managed by academia, industry, and government.- Focus on dual-use AI for civil and military applications (e.g., disaster management, aerospace autonomy).
5	**Integration of Expert Domain and Industrial Knowledge**	Engage operational experts from NSF, FFRDC's, National Labs, DARPA, AFRL, NASA, and Industrial partners in strategy development. Align R&D efforts with operational feedback from critical fields like defense logistics and ISR. Integrate academia and industry.
6	**Secure AI Innovation Pipeline**	Strengthen CFIUS and expand export controls to protect intellectual property from espionage.- Establish Tech IP Sovereignty Zones for robust IP protection against foreign acquisitions. Enable NSF or other sponsored critical research to gain IP protections.
7	**National Technology Vetting and Oversight**	Require third-party technical assessments for AI investments exceeding $15 million. Develop a centralized registry (supply chain intelligence) to track and verify technology readiness. Develop an interagency (NSF, DOE, DoD/IC, FBI, DHS, etc…) strategy.

8	**Focused Public-Private Funding Initiatives**	Implement joint funding: every private dollar in key AI sectors (manufacturing, cybersecurity, quantum, biotech) matched by two federal dollars upon achieving technical milestones.
9	**Talent Development and Mobilization**	Accelerate AI talent with federal fellowships, fast-tracked security clearances, and mandated federal service.- Utilize selective immigration incentives to attract essential global talent.
10	**Establishment of Regulatory Acceleration Zones (RAZ)**	Create designated geographic zones to rapidly test and deploy AI by temporarily overriding standard regulations (FCC, FAA, EPA) under national security waivers.- Applications include autonomous systems, drone swarming, and battlefield communications.

By implementing clear definitions, actionable benchmarks, robust security measures, expert integration, and precise talent mobilization strategies, this rewritten strategic plan will decisively propel U.S. leadership in AI, ensuring economic growth, national security, and societal flourishing.

We single out investment strategy and policy as a critical element totally missing in the previous document and requiring unique attention.

Investment Policy Reform Contexts

Operating a venture or investment fund by **ignoring fundamental due diligence disciplines in both technology assessment, financial assessment and market assessment** turns a fund basically into a game of random chance. **This is not acceptable.**

Opinion and shallow processes underscore many funds and the cause for a preponderance of missed opportunities, competitive lag of the US and underlying value destruction. Basic tactics such as using independent sources to assess a team and technology, enforcing the need to talk to a customer reference or verifying facts through third-party sources, are simply omitted.

Why was it necessary for OpenAI as such a unique, AI technology company, that could be arguably stated as a jewel in the crown of the United States, to have had its model IP distilled into a "DeepSeek"? Why was this technology not subject to real protections, recognition of its astonishing impact? We have all heard the statement *"this is not credible"* many times. This example of OpenAI is a lot like the example of the Manhattan Project: we armed our adversaries with our nuclear weaponry and created our own destabilized world. What are we going to do next?

When we want to pitch technology, we are constantly told, *"dumb it down!".* Do we live in a future of greater dummies? When Richard Feynman was asked for a 30 second soundbite by a news reporter he retorted *"Listen buddy, if I could explain it in fifty words or less, it wouldn't be worth a Nobel Prize."*

Today, investors behave in geopolitical distributions with template statements like *"dumb it down!".* That is not what is said in China, or India or other countries. In China they say something like **guanxi** (关系) to build the

personal relationship and then **"Explain it to me"** (讲清楚). The phrase "Dumb it out" is unique to the USA and needs to be thrown out. The reason for the "dumb it down" phrase is that the focus has always been on business-scaling, technical ignorance philosophy. That works well as long as no one is inventing anything new. There is no focus on technology value. It is time to change.

Deep technology cannot be explained in a 10-20 slide deck. It would read like science fiction if that were true.

The ignorance of investors today is born by the normalization of the habit of relying solely on a company's 10 to 20-slide pitch deck. And the adage "Dumb it down". This habit is now a key cause in the matter for the systemic failure and underperformance in the USA and the closing gap of leadership with its peer competition. It is taken as the norm that 90% of investments should be expected to fail. Why? Just because? *Would you trust a neurosurgeon with a 10% track record of success in operating on your brain?* The true costs from investors to the US can be summarized:

1. **Missed Signals of Fraud or Weakness**
    - Without vetting the **technical capability of the team**, VCs overlook the core drivers of innovation. Funders overestimate their own intelligence all the time.
    - Example: *Theranos*—valued at $9B before collapsing—received backing largely off a PowerPoint deck, lacking technical validation from experts.
2. **Inability to Spot Real Differentiation**
    - Many funds fail to understand whether a technology has **deep defensibility or unique IP**. Rejection is often based on opinion, and arbitrary templates.
    - Investors **overfund duplicative ideas** with weak moats in a herd mentality.
    - Enthralled with only on business scaling, quarterly trends, and jaded mindsets
3. **Valuation Bubbles and Collapse**
    - Relying on a deck or founder storytelling causes **inflated valuations** unsupported by revenue, traction, or unit economics.
    - Example: *WeWork* – glorified pitch culture, no financial discipline, massive value destruction.
4. **Over-Indexed on "Hype" Narratives**
    - Herd mentality, fueled by celebrity founders or buzzwords like "AI" or "Web3," replaces analytical rigor means that entire portfolios are loaded with **trend-based failures**.

U.S. venture investment strategy has drifted toward **narrative-driven gambling** rather than disciplined industrial foresight. Relying on charismatic founders and pitch decks undermines national competitiveness, particularly in strategic sectors like semiconductors, AI, energy, and biotech. Here are some notable historic examples:

- **Bessemer Venture Partners**
    - **Missed: Google**
        - Bessemer famously passed on Google, failing to understand the magnitude of search as a platform.
    - **Consequence:** Lost exposure to one of the most valuable tech companies in history.
- **Sequoia Capital**
    - **Missed: Airbnb (initially)**
        - Sequoia passed on early-stage Airbnb, unconvinced by the model of strangers renting couches.

- Eventually invested later at higher valuations.
- **Consequence:** Missed early equity and influence in a major global platform.

- **Andreessen Horowitz (a16z)**
  - **Wasted: Clubhouse, Crypto & Web3 Bloat**
    - a16z heavily backed **Clubhouse** (social audio app) and numerous **Web3 projects** based on hype without sustainable use-cases.
    - **Clubhouse** fell from $4B to near-zero relevance.
  - **Consequence:** Billions vaporized in valuation with zero tangible industrial or technological impact.

Based on these findings **we recommend increasing the level of investment** in the community of funders to include Family Offices, alternative vehicles, and to enlarge the aperture of types of funding instruments and modalities from debt to equity and other models. We suggest the following reform policies to address the critical problems:

TABLE-3: Investment Regulatory Policies

Reform	Description	Purpose
Federal Investment Agency	A board like organization to audit and approve fund eligibility for federal or pension fund capital or other public sources	Forces long-term performance over short-term buzz
Venture Research Clearinghouse	Independent registry that grades startups on real science, TRL, and execution maturity	Becomes the "Moody's for tech startups"
Founders' Tech Disclosure Act	Requires all founders to list verifiable personal technical contributions on record	Ends mythology-driven investment narratives

Federal Capital Availability to Investors and Control Policies

TABLE-4: Governance Policies to Ensure Investment Integrity

#	Policy	Explanation and Intended Outcome of Policy
1	**Funding Clawback Clause**	Investors failing to meet defined technology and deployment milestones within agreed timelines must repay federal matching capital. Discourages passive investing and double-dipping.
2	**Blacklisting from Future Funds**	Investors or investment firms found guilty of disintegrity, lack of scientific rigor, trackable reporting, or political grifting face immediate exclusion from future federal funding opportunities. For example, funds should not have the right to launch majority controlled "shells" to use public monies or to redirect funds in poor-portfolio performers when intended for certain technology advancements in an intended target.

3	**Public Accountability Reporting**	Investors whose portfolios underperform significantly (≥50% losses without clear technological advancement or economic rationale) must publicly disclose details of funded companies and rationale, reducing incentive for fraudulent behavior. Investors relying on public money as part of the fund and engaging with any company that serves the national interest must provide a coherent well-written reason for not accepting a "pitch" or "refusing" to fund. Failure to do so with a credible basis result in immediate termination for cause of the funds performance.
4	**Civil and Criminal Fraud Liability**	Strict legal consequences, including civil suits and criminal charges, applied against corrupt individuals or entities who intentionally mislead, falsify investment criteria, or engage in politically motivated corrupt practices or deny funds on the basis of personal, irrational, non-metric, non-functional criteria loose the public fund support.. **See item 3.**
5	**Loss of Accreditation**	Investors or VCs consistently failing independent scientific and technical audits, which means that they do not ask a third-party or a federal lab or FFRDC or university or other organization to engage in diligence but rely on their own "feelings" or ad-hoc "perceptions" or "opinions" lose their accreditation status, barring them from receiving matching funds or participating in federally subsidized investment programs.

Federal Direct to Company Capital and Investment Increase

We strongly encourage an increase in Federal participation in the investment agenda in companies directly and to increase available capital to funders. We encourage the deployment of public capital to advance US technology. However, to mitigate the risk of fraud, waste and abuse in investment while increasing the availability and access to capital to companies the merit and need it, which is a key ingredient to success in winning the competition to technology superiority and especially in advancing and winning the race to AI Superiority, we provide the following key policy incentives for consideration:

TABLE-5: Direct To Company Capitalization Policies

#	Tactic	Specific Actions	Proactive Investment Incentives
1	**Monitor Emerging U.S. Startups as Funding Targets**	Scrape patent filings, company websites, founder blogs, innovations, and university spinouts. Utilize data tools to track companies and undervalued technologies. Prioritize diligence.	Given an existence proof of a technology, a third-party use and basic achievements, initiate a due-diligence as pro-active US technology supply chain process. Proactively reach out to help.

2	**Support U.S. Federal Managers & Startup Incubators**	Establish more "innovation zones" modeled on Creative Destruction Lab, and Y Combinator. Augment U.S. commercialization pathways, such as SBIR or STTR grants. Invest in academic partnerships and academic startup incubators as well as academic spinouts.	Ignite a patronage system by empowering senior USG managers to fund up to $1M pilots without undue red-tape to produce the material results for a company to gain greater funding. Universities must open their doors to outside startups also.
3	**Create new Federal Limited Partnerships (FLPs) for Funding**	The public interest can be met by creating a stock model for Federal entities to become LPs in either a strategic company, or U.S. venture capital fund or in partnership with Family Office or to build an SPV for deal flow and startup vulnerabilities.	The requirements that justify Defense Production Act Title-III are not based on a commercial-first strategy such IQT. Military and Intelligence specific capabilities ahead of the state of the art are incompatible with vanilla commercial plays.
4	**Import, Tech Acquisition and STEM specific Immigration**	Utilize fund companies or third-party intermediaries and neutral countries (e.g., Singapore, Canada) for investments and IP acquisitions of foreign assets and bring these into the USA. Capture the talent and renovate immigration to STEM friendly incentives to work.	Acquisition of AI technology by the USA for sensitive operating needs can be incentivized through Canada, United Kingdom, Australia, and other partners to bypass Chinese, Russian or other adversarial scrutiny.
5	**Empower the Investment Signal, Capital availability**	Companies in the USA are often subject to false rumors, fabricated legal disputes, or manipulated online narratives to discredit startups or lower their valuations artificially to trigger business risk. Work to build a technology innovation level metric for investibility. Use Technology Readiness Level metrics. Ensure companies can be funded to meet the **Defense Production Act (DPA) Title-III** requirements by providing material, pilot testing, support, checks and balances.	Using a national registry of companies, metrics of diligence and capabilities, make capital available to fully sponsored and in the national interest AI technology companies with foundational innovations. Prefer first-principle invention versus derivative AI companies. Avoid outsourcing capital availability to "VCs" or "funders" but ensure there is unique capital available for companies in the national interest.

We recommend a **federal and state-capital hybrid investment model with academic incentive investment** to create dramatically better alignment across capital, talent, and technology. We list a few of the desiderata:

1. **Federal National Technology Supply Chain**
    - Federally backed funds to technology companies in AI that enter a national registry having passed a technology diligence process that is scientifically sound.
    - The registry can also include a national talent supply chain (inventors, scientist, engineers)
2. **Mission-Oriented Capital Deployment**

- State-backed funds to invest for state capability, not just quick returns, in the national interest.

3. **Integrated Talent & Tech Assessment**
   - Teams are evaluated on deep science/tech merit, with government institutes, and academia, not funders, supplying assessments (e.g., for AI, semiconductors, biotech).
4. **Fast Industrialization via Local Pilots**
   - Piloting investments include guaranteed **pilot markets** via local governments to quickly increase viability and help mature the company or technology.
5. **Parallel Development Tracks**
   - Domestic competition builds **redundant champions** in each strategic domain (e.g., 3-5 players in AI chips), ensuring resilience and parallel bets.

TABLE-6: Public Private Academic Command Partnerships for Capitalization

Policy Lever	Description	Intended Impact
Mandated Third-Party Technical Diligence	Require all investors to be reviewed by certified technical experts or independent think tanks and vet their decision process	Prevent narrative-driven investments in unvetted tech. Bring integrity to the top.
National Technology Assessment Registry	Centralized repository of expert-reviewed startup technologies, rated on TRL (Technology Readiness Levels) and Innovativeness metrics	Ensure tech innovativeness is known before funding. Is the tech derivative or foundational and new. Prefer invention.
Investment Risk Auditing Authority (IRAA)	Government audit unit that flags portfolios with large write-downs for poor practices	Accountability and transparency. Reveal the public good and diminish waste.
Public Funds for Strategic Domains (DoD/IC)	Make funding available for companies in AI, quantum, biotech, etc., but only after rigorous IP and team assessment. Diminish the value of commercial first in DoD/IC focused federally supported organization like IQT (In-Q-Tel).	Direct capital to real innovation independent of funder or bank blind spots, versus over emphasis on commercialization first. Prioritize technology, DoD/IC first.
Create National Lab-Incubator Crossovers	Force coordination between innovative startup or company founders and public R&D labs (e.g., Sandia, NIST) to incentivize commercial ventures, technology transfer and capital	Re-anchor investment to real science and real people, family offices, banks, and companies and their founders.
Entry-Focused Metrics & Penalties	Penalize funds that repeatedly fund "copycat" startups for exit-focus versus incentives for entry-focus. This creates a climate for grass roots invention and innovation with longer horizon return strategies.	Drive responsible capital deployment into the technology interest for AI Superiority and sustainment for DoD/IC with commercialization to follow.

Perspectives and Final Thoughts

Our viewpoint is the **American investment (especially Venture Capital, VC) model has become a speculative entertainment industry**, while **foreign competition has burned domestic capabilities and turned investment into a competitive national strategy**. Without reform, we believe that the U.S. will severely lose any remaining technology edge in foundational areas where **first-mover advantage determines global leadership**. The key destroyer of value is the over-emphasis on open-source, or commercial first technology because these inclines favor economic and business scaling. To mitigate the risk of **over-indexed media hype**, **herd mentality**, and **celebrity-founder-driven investment failures**, as well as the horrendous idea that commercial technology is the path for U.S. AI dominance, that innovation policy and capital governance will do it by themselves or that the national interest can be trusted to open-market dynamics is proven bby the current losses in US global leadership, the loss of our high-technology semiconductor industrial base, product manufacturing capacity and the incredibly few deep-technology companies that originate new concepts. If the new plan is to succeed, it will require a **systemic multiple reforms to the way that US investment incentive design is to be built to win**. We again repeat, but it is worth doing so. We prioritize:

1. Restoring analytical and technical rigor to the funding and innovation incentive process
2. Penalizing trend-chasing behavior which means bigger visions need increased support
3. Incentivizing deep-tech and validated innovation needs vetting funder opinions
4. Ensuring investor accountability and portfolio resilience needs increasing capital supply
5. Tracking and making available a national talent and tech supply chain while protecting IP

Our final point and Guiding Principle

"Narratives don't build technology. Engineers do." Public and institutional capital should reward engineering depth, not media seduction. ***The U.S. innovation ecosystem, though rich in talent and foundational R&D***

Create a **Public-Private-Academic Command (PPAC)** modeled with a strategic group, built after the historic **JASONS***, empowered for 21st-century national AI technology leadership. This body would:

- Set mission-critical AI innovation priorities
- Direct funding through milestone-validated partnerships
- Collapse the R&D-to-fielding cycle from 6 years to under 2
- Vet and endorse testable, scalable technology for defense, civil, and commercial dual-use
- Include business acumen to complement the team

The U.S. doesn't lack talent, ideas, or capital. It lacks **execution discipline, national integration, and deployment velocity**. By reforming the public-private pipeline with a JASONS-style command authority and emulating the *speed, purpose, and prioritization* seen in foreign competition—yet guided by open democratic values—the United States can **compress innovation timelines** and **reassert global technological superiority**.

*For a reference about the JASONS see: https://en.wikipedia.org/wiki/JASON_(advisory_group)

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