

# PUBLIC SUBMISSION

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**Comment On:** NSF-2025-OGC-0001-0001  
Request for Information: Development of a 2025 National Artificial Intelligence Research and Development Strategic Plan

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## Submitter Information

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## General Comment

See attached file(s)

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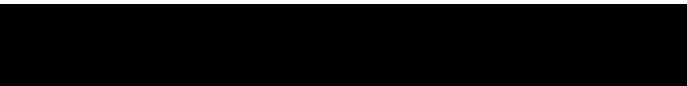
## Attachments

RFI AI RD OSTP RONAT 29May2025

**To:** Networking and Information Technology Research and Development (NITRD)  
National Coordination Office (NCO), Office of Science and Technology Policy  
(OSTP)

**Subject: Response to Request for Information on the Development of a  
2025 National Artificial Intelligence (AI) Research and Development (R&D)  
Strategic Plan**

**From:** Odile Ronat, independent IEEE CertifAIED Authorized Lead Assessor,  
semiconductor executive with over 25 years experience in high reliability technology for  
the space and defense market



It is critical that the federal government invest in AI-driven R&D to achieve the US leadership goals in the field of AI while addressing AI alignment, socio-technical robustness and governance mechanisms to ensure long-term trust and safety. AI is an opportunity to augment individuals provided it is done safely and equitably.

**1. Drive Foundational Research to Strengthen National Security in an AI World**

To safeguard American leadership and security, the federal government must invest in foundational AI R&D that enhances national defense capabilities while preserving democratic values.

- **Secure Infrastructure Against AI-Enabled Threats:** Fund R&D to protect critical infrastructure—defense networks, communications, and cyber-physical systems—from AI-driven adversarial attacks, misinformation, and manipulation campaigns.
- **Advance AI for Intelligence and Threat Detection:** Support cutting-edge AI systems that can augment human analysis in intelligence gathering, anomaly detection, and risk forecasting, helping our nation stay competitive in a rapidly evolving global threat landscape.
- **Promote Responsible Defense Applications:** Invest in research that enables the use of AI in defense systems to increase targeting precision, reduce collateral damage, and ensure ethical compliance in line with international humanitarian law.

- **Enhance Warfighter Safety and Capability:** Develop AI-enabled systems that increase situational awareness, improve connectivity with command centers, and provide real-time decision support, all while enhancing soldier safety on the battlefield.
- **Revolutionize Military Training:** Fund AI tools to create realistic, adaptive, and collaborative training environments for troops, improving preparedness, cohesion, and effectiveness across units.

*Justification:* National security is a foundational role of government. AI's dual-use nature necessitates investment in safe, democratic, and effective applications that keep the U.S. secure and competitive while minimizing risks.

## 2. Ensure the Robustness, Alignment, and Safety of AI Systems

As AI becomes more powerful and integrated into critical systems, ensuring its trustworthiness is vital. The federal R&D strategy must prioritize measurable safety and alignment standards.

- **Establish National Testing Infrastructure:** Fund standardized testbeds and public-private evaluation frameworks for assessing AI capabilities, safety, and alignment. Define benchmarks and release standards based on robust evidence and use-case risk.
- **Develop Scalable Alignment Technologies:** Invest in fundamental research for AI alignment, particularly under distributional shifts and adversarial conditions. This includes reinforcement learning with human feedback, scalable oversight mechanisms, and the modeling of human values.
- **Ensure Transparency and Auditability:** Advance methods for interpretable AI decision-making, especially in high-stakes domains like healthcare, finance, and critical infrastructure. AI systems must be accountable and explainable to both experts and impacted communities.
- **Optimize Human-AI Collaboration:** Fund research into how humans and AI can best collaborate in complex environments—like emergency response or air traffic control—where stakes are high and coordination is critical.

*Justification:* Without public investment, the private sector may underinvest in long-term safety research. Government leadership ensures AI

development remains safe, democratic, and aligned with societal values. Leadership in this area may be decisive in reinforcing international alliances and defending American AI ecosystem against adversarial efforts.

### **3. Expand Equitable Access to AI-Enabled Education and Workforce Opportunities**

AI has the potential to transform education and employment. Strategic R&D must ensure these benefits are broadly shared and support lifelong learning and economic inclusion.

- **Analyze and Address Labor Market Disruptions:** Support research that tracks how AI reshapes employment and propose forward-looking policy frameworks to mitigate inequality and support economic mobility.
- **Scale National AI Literacy:** Fund curriculum development and propose public education initiatives to promote AI understanding.
- **Personalize Education and Upskilling:** Determine the elements of effective AI-powered educational technologies that personalize learning, foster critical thinking, and support underserved students and workers seeking re-skilling for the jobs of tomorrow.
- **Support Educational Matching Tools:** Develop tools that help individuals discover the best educational and career pathways based on their strengths, interests, and local labor market trends.

*Justification:* Education is a cornerstone of economic competitiveness and civic empowerment. Federal R&D investment ensures AI serves as a bridge to opportunity.

### **4. Build the Infrastructure for a Resilient and Competitive AI Ecosystem**

Securing U.S. leadership in AI requires robust, accessible, and sustainable infrastructure across compute, data, and academia.

- **Invest in Next-Generation Compute Technologies:** Fund R&D into cutting-edge computing architectures—including neuromorphic and quantum systems—that enable more efficient, scalable AI processing.

- **Promote Energy-Efficient AI Infrastructure:** Support technologies for end-to-end energy efficiency—from production, distribution to data center design to edge computing—to reduce AI's carbon footprint and align with U.S. climate goals.
- **Democratize Access to Compute and Data:** Establish federally funded AI research clouds and national datasets that give universities, startups, and nonprofits access to critical AI resources. Prioritize curated, transparent, and privacy-protecting datasets.
- **Sustain Academic Leadership in AI:** Ensure long-term support for university research labs, interdisciplinary programs, and public-private partnerships that drive open innovation.

*Justification:* AI innovation requires sustained investment in infrastructure that the private sector cannot provide equitably or at scale. Government leadership ensures inclusive access to compute and data resources critical for long-term competitiveness.

## 5. Direct AI Innovation Toward the Public Good

Federal R&D funding should prioritize AI applications that address society's most urgent challenges and advance collective well-being.

- **Mitigate Climate Change with AI:** Invest in AI tools that support environmental monitoring, climate modeling, disaster prediction, and resource optimization in sectors like energy, agriculture, and transportation.
- **Improve Transportation Safety and Efficiency:** Develop AI systems that reduce congestion, optimize mobility networks, and help achieve Vision Zero goals by preventing traffic fatalities without resorting to environmentally damaging road expansion.

*Justification:* Market forces alone are unlikely to direct AI innovation toward long-term societal needs. Government investment ensures that AI works for the public good and advances national priorities such as sustainability, equity, and resilience.

## Conclusion

The federal government plays a crucial role in shaping the trajectory of AI research and development. By prioritizing safety, democratic oversight, national security, public good, and inclusive opportunity, the 2025 National AI R&D Strategic Plan can guide the United States toward a future where AI strengthens—rather than undermines—our institutions, values, and global leadership. We strongly support OSTP's efforts and would welcome the opportunity to contribute further to implementation or expert convenings aligned with these priorities.

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End of Submission