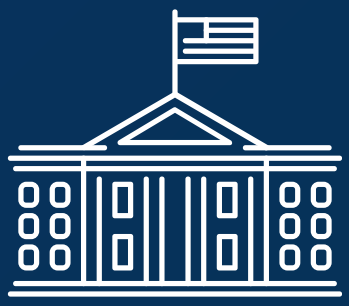

Memos to the
PRESIDENT

Artificial General Intelligence (AGI)

Special Competitive Studies Project

Memos to the
PRESIDENT

Subject: Big Ideas to Ensure America Wins the Artificial General Intelligence (AGI) Competition with China

Purpose: Characterize the AGI competition and what we can do to win it as a nation.

Objectives: Ensure U.S. domination of the AGI Presidency through cost-effective moves now.

1. *Organize to Win.* The United States should organize "moonshot" programs, modeled on past successful efforts like the Manhattan Project, to drive AGI innovation, supported by short and long-term tech strategy teams.
2. *Fuel the Victory.* This memo advocates for conservative short and long-term resourcing strategies—including funding mechanisms and infrastructure investments—to ensure sustained progress and transformation across government and private sectors.
3. *Master AGI Attack and Defend.* With a focus on avoiding the mistakes of the cyber era, the strategy emphasizes offensive and defensive measures—such as counter-proliferation efforts, international cooperation, and cybersecurity—to protect AGI technologies and mitigate threats while maintaining U.S. dominance in this domain.

Background

The two largest economies in the world are openly competing for global leadership in AGI as the next general purpose technology that will drive economies. The United States led whole ages of economic development such as the machine age, electrification, and digitization. The machine age and electrification combined to bring about the first Industrial Revolution. Digitization resulted in global digital economies. Now AGI or "intelligentization" is the next such economy-shaping technology that the United States must lead and the next level of AGI[1] is expected to be here this year.[2]

The U.S.-China AGI competition is intense. The U.S. ecosystem leads for now in the technical performance of frontier models, but the Chinese Communist Party (CCP) ecosystem is more organized to pursue AGI in terms of national ambition, adoption, and infrastructure. Comparing the U.S.-China path to AGI can be done across *three levels of analysis*: 1) current AI technology progress, 2) national ambition for AGI, and 3) AGI-related infrastructure.

[1] Meredith Ringel Morris, et al., Position: Levels of AGI for Operationalizing Progress on the Path to AGI, arXiv (2024).
[2] Sam Altman, Reflections (2025); see also Ylli Bajraktari, The Artificial General Intelligence Presidency is Coming, Foreign Policy (2024).

First, since AI progresses in "levels,"[3] it is possible to take **the current level of AI** and compare factors in the United States and China to infer national positioning for AGI across: 1) the number and quality of LLMs, 2) private AI investment, 3) AI company generation, 4) patents, and 5) publications. The United States continues to have a robust AI ecosystem led by an established private sector, where a handful of large companies[4] such as Google and OpenAI have produced most of the world's foundation models in the last 5 years.[5] However, Chinese startup DeepSeek's V3 model is reported to outperform OpenAI's GPT-4o and Meta's recent version of Llama.[6] In 2023, private AI investment in the United States was almost 9 times greater than the amount invested in the next-highest country – China – and 897 new U.S. AI companies were created.[7] The United States remains a top destination for top-tier AI talent,[8] but as big U.S. tech companies begin to turn more opaque in terms of research and development,[9] the number of AI patents[10] and publications produced by the United States. could start to slip.[11]

Second, since virtuoso levels of AGI are not here yet, **national ambitions, goals, and programs** imply which government is more organized to benefit from AGI's arrival. China has at least two national programs with the open ambition to achieve AGI. Beijing Academy of Artificial Intelligence (BAAI) focuses on fundamental research and talent cultivation, aiming to achieve breakthroughs in core AGI technologies.[12] Beijing Institute for General Artificial Intelligence (BIGAI) is dedicated to building safe and controllable AGI systems, with a strong emphasis on cognitive science and neuroscience.[13] CCP President Xi's statements highlight the need for China to lead the world in AI by 2030.[14] On the other hand, the United States has no explicitly named national AGI program. The Biden Administration has favored "pilot programs" over moonshots in the middle of this international competition. Announced over six years ago at $2B, the high mark for ambition may be DARPA's AI Next Campaign which focuses on developing "third wave" AI technologies, including contextual reasoning, explainability, and common sense, which are crucial stepping stones towards AGI.[15] Several strong AI programs have spun out of this wave and independently from 2017 to the present.

The third level of analysis is an **AI infrastructure view.** Future AGI leadership viewed through this lens is mixed and competitive. The United States holds an edge in chips, top-tier data centers, and established cloud ecosystems, while China leverages superior energy capacity, widespread 5G infrastructure, and fast-growing semiconductor investments to steadily challenge American dominance. In 2022, China generated approximately 8,950 TWh of electricity, dwarfing the U.S. figure of around 4,439 TWh, thereby offering greater capacity for sustained high-load computational tasks.[16] China networking that carries AI results to

[3] Meredith Ringel Morris, et al., Position: Levels of AGI for Operationalizing Progress on the Path to AGI, arXiv (2024).
[4] Paul Triolo & Kendra Schaefer, China's Generative AI Ecosystem in 2024, The National Bureau of Asian Research (2024).
[5] Artificial Intelligence Index Report 2024, Stanford University, Human-Centered Artificial Intelligence (2024).
[6] Kyle Wiggers, DeepSeek's New AI Model Appears to Be One of the Best 'Open' Challengers Yet, TechCrunch (2024).
[7] Artificial Intelligence Index Report 2024, Stanford University, Human-Centered Artificial Intelligence (2024).
[8] The Global AI Talent Tracker 2.0, Marco Polo (2023).
[9] Artificial Intelligence Index Report 2024, Stanford University, Human-Centered Artificial Intelligence (2024).
[10] Country Activity Tracker (CAT): Artificial Intelligence, Emerging Technology Observatory (2024).
[11] Eliot Chen, Chinese AI Companies Are Catching Up Despite U.S. Restrictions, The Wire China (2024); China May Soon Be the Top AI Innovator in the World, New Report Finds, Information Technology & Innovation Foundation (2024); Ashwin Achary, Comparing U.S. and Chinese Contributions to High-Impact AI Research, Center for Security and Emerging Technology (2022).
[12] About BAAI, Beijing Academy of Artificial Intelligence (last accessed 2025).
[13] Beijing Institute for General Artificial Intelligence (last accessed 2025).
[14] Graham Webster, et al., Full Translation: China's 'New Generation Artificial Intelligence Development Plan' (2017), New America (2017).
[15] DARPA Announces $2 Billion Campaign to Develop Next Wave of AI Technologies, DARPA (2018).
[16] China, International Energy Agency, (last accessed 2025); United States, International Energy Agency, (last accessed 2025).

users has surpassed 3 million installed 5G base stations by mid-2023 – ensuring that AI data centers connect seamlessly to distributed computing nodes, edge locations, and global customers.[17] Analysts estimate that China's government has pledged well over $100 billion, cumulatively since the mid-2010s, to bolster its domestic semiconductor ecosystem—at least double what the United States federal government dedicates.[18] This extensive funding underpins China's AI data centers, distributed computing infrastructure, and larger industrial policy goals. For the United States, half of the world's hyperscale data centers are located within its borders.[19] Meanwhile, the Semiconductor Industry Association (SIA) reports that U.S. semiconductor firms collectively account for nearly half of global chip sales, reflecting the strong market positions of companies like NVIDIA, Intel, and AMD in developing GPUs, AI accelerators, and advanced CPUs for high-performance computing and artificial intelligence applications.[20] Meanwhile, the top U.S.-based cloud providers—Amazon Web Services, Microsoft Azure, and Google Cloud—collectively captured over 60% of the global cloud infrastructure services market in Q2 2023, offering sophisticated distributed computing architectures that drive scalable AI training and inference.[21] For more U.S.-China comparative analysis through the AI infrastructure lens, see SCSP action plans for energy, advanced compute, global networks, and generative AI.[22]

Recommendations

1. Organize to Win

The U.S. Government should establish and fund a series of ambitious, parallel "moonshot" programs that raise the bar beyond mere "pilot programs." This set of national programs should be dedicated to acquiring AGI platforms and applications for national security purposes. Unlike the space race or supercomputer competition, AGI is not a pure hardware game, so more than one AGI moonshot is possible at an affordable cost. This would allow the United States to pursue multiple, diverse AGI moonshots concurrently, maximizing the chances of success and ensuring a leading role in shaping the future of this transformation.

- **Washington D.C. AGI System.** A world-class AGI cluster on a regional military installation would simultaneously solve for 1) ready government access to AGI applications designed for national advantage and 2) speed of construction due to rapid permitting and military engineering and organization. The project should be overseen by the President's AI Czar and led by a general

[17] Stephen Chen, China Built More 5G Base Stations in 3 months than US Did in 2 Years, China Morning Post, (2023).
[18] Antonio Varas, et al., Government Incentives and US Competitiveness in Semiconductor Manufacturing, The Boston Consulting Group & Semiconductor Industry Association (2020).
[19] Hyperscale Data Center Capacity Doubles in Under Four Years; the US Still Accounts for Half, Synergy Research Group (2021). Hyperscale data center market research (last accessed 2025).
[20] The 2023 SIA Factbook: Your Source for Semiconductor Industry Data, Semiconductor Industry Association (2023).
[21] Global Cloud Services Market Growth Slows to 16% in Q2 2023, Canalys (2023).
[22] National Action Plan for U.S. Leadership in Next-Generation Energy, Special Competitive Studies Project (2024); National Action Plan for U.S. Leadership in Compute Leadership, Special Competitive Studies Project (2023); National Action Plan for U.S. Leadership in Advanced Networks,Special Competitive Studies Project (2023); Generative AI: The Future of Innovation Power, Special Competitive Studies Project at 53 (2023). There are other cross-cutting factors like talent and data management. The data advantage goes to China, which has a vast population and a less stringent data management regime. The talent pool, however, is more contested as both countries boast strong talent in AI research—though China is rapidly catching up and may soon surpass the United States in terms of the number of AI researchers and engineers.

officer, similar to the organizational structure of Operation Warp Speed, to ensure efficient execution and coordination.

- **Short-term Organization Advantage.** The White House can immediately establish a six-month, AGI application/moonshot steering committee, like the 1940 National Defense Research Committee[23] which included well-known technologists and scientists who drove the creation of radar and the atomic bomb. The NDRC of today would report directly to the President with resources and move the nation beyond mere pilot programs to multiple Manhattan-styled programs, accountable to the President with ambitious timelines.

- **Long-term Organization Advantage.** AGI converges with other technologies that represent whole sectors of the economy like energy, networking, data centers, and advanced compute. A small elite team of technology strategists should report to the Office of the Vice President of the United States to focus full-time on the associated technology competitions that will drive the destiny of free versus authoritarian nations.

2. Add the Fuel

The United States should create conservative short-term and long-term resourcing strategies.

- **Short-term Resourcing**. The United States should create funding vehicle(s) to completely support a series of Manhattan-like programs and the full-slate of non-DoD AI that allows departments and agencies to transform to the AGI era.[24]

- **Long-term Infrastructure Investment Bank.** A national infrastructure bank (like EXIM, DFC or a Sovereign Wealth Fund) should offer low-interest loans, loan guarantees, and equity investments for creating large-scale national AGI infrastructure projects with long-term horizons, attracting private capital and reducing reliance on limited federal funds.

3. Dominate Offense & Defense

The National Security Council should provide the President of the United States with AGI protect and attack options. Organization for cyber warfare came too late even though the Reagan administration was thinking about offense/defense way ahead of the curve.[25] To ensure the United States is not out-organized in the AGI domain, this type of thinking is needed now.

Organizing for the Offensive

- **The National Security Council should establish an AGI attack framework** to generate offensive options for the President to destroy, disrupt, or delay AGI systems that are weaponized against the United States. Certain national security threats will require such options like

[23] National Defense Research Committee, U.S. Department of Energy (last accessed 2025).
[24] Fueling Innovation: Insights into Federal AI R&D Investment, Special Competitive Studies Project (2024); Funding for the Future: The Case for Federal R&D Spending, Special Competitive Studies Project (2024).
[25] NSDD-145, National Policy on Telecommunications and Automated Information Systems Security, National Security Council (1984).

biological weapons platforms, autonomous cyber attack systems, and autonomous propaganda platforms aimed at our citizens from rival nations.[26]

Developing Defensive Capabilities

- **Counter-Proliferation Playbook.** Identify current chokepoints in U.S. control for developing advanced AGI systems and task the national counter-proliferation enterprise to cover AGI in addition to chemical, biological, and radiological weapons. Adapt and apply successful elements of the counter-proliferation playbook to AGI, focusing on export controls, technology denial, and international cooperation to prevent proliferation of dangerous AGI capabilities.

- **International Cooperation on Security.** Foster international cooperation on AGI security, including information sharing, joint research, and development of norms and standards to mitigate global risks.

- **Export Controls.** Implement strict export controls on sensitive AGI technologies, including source code, hardware designs, and training data, to prevent their acquisition by adversaries.

- **Corporate IP Theft.** Strengthen intellectual property protection measures, including enforcement and international cooperation, to combat AGI-related IP theft and espionage.

- **Academic Research Security.** Promote rigorous research security practices within AGI labs and universities to safeguard sensitive data, algorithms, and experimental findings.

- **Cybersecurity and AGI.** Mandate robust cybersecurity standards for AGI development and deployment to protect against intellectual property theft, sabotage, and unauthorized access.

- **Solve the Open-Source vs. Closed-Source Debate.** The United States needs a simple position on how to mitigate harm from open-source AI models that can be easily weaponized by rival nations.

- **LLM/Weights Protection Issue.** Establish clear guidelines and regulations for protecting large language models and their weights, thus balancing open access with national security concerns.

- **The Nationalization Issue.** Clarify the roles and responsibilities of government and the private sector in AGI development, ensuring national security interests are protected while fostering innovation.

Conclusion

In sum, the future of global power and prosperity hinges on the United States' ability to take decisive, affordable, and unified action in advancing AGI. By organizing now for transformative moonshot programs, fueling them with both immediate funding and long-term investment vehicles, and taking the

[26] Final Report, National Security Commission on Artificial Intelligence at 43 (2021).

lead on offense and defense measures, the United States can secure dominance for the next century. The choice before us is clear: let fragmented efforts and weak and underfunded pilot programs result in ceding leadership to China over time, or initiate a coordinated national approach that emulates our greatest achievements in science, technology, and national defense. If we commit to bold organizational structures, expanded research and development, and robust protective strategies, America will remain at the helm of the global technological frontier. The time to decisively shape this new intelligent era is now—and with the right vision, resources, and resolve, we will ensure that the coming age of AGI reflects and strengthens our nation's values, security, and leadership.