



Memos to the
PRESIDENT

Department of
Commerce

Special Competitive Studies Project



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- Subject:* Modernizing the Department of Commerce for Strategic Competition
- Purpose:* Outline key recommendations for restructuring the Department of Commerce to advance U.S. economic and national security interests.
- Objectives:*
1. *Supercharge* the Department of Commerce to Lead America’s AI Future
 2. *Bolster* Techno-Economic Intelligence Capabilities
 3. *Position* the U.S. Industrial Base for Techno-Industrial Competition
 4. *Organize* the Bureau of Industry and Security for Tech Rivalry
 5. *Retool* the International Trade Administration
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Background

As the tip of the spear for advancing U.S. techno-economic competitiveness and security, the Department of Commerce (Commerce) must evolve to address the challenges and seize the transformative opportunities of AI and strategic competition. AI is poised to deliver massive economic benefits, driving productivity gains across industries and unleashing new sources of prosperity.¹ However, the geopolitical landscape has shifted, requiring Commerce to adapt to an era of strategic rivalry rather than unfettered globalization. China’s state-driven economic model gives Beijing asymmetric advantages that the U.S. Government is not currently organized to counter effectively. To rise to this challenge while unlocking AI’s potential, Commerce must be reorganized and strengthened. As it recalibrates for this new reality, Commerce must also sustain its core mission of fostering economic dynamism. The following reforms are essential to prepare the Department for these demands.

Recommendations

Objective 1: Supercharge Commerce to Lead America’s AI Future

Traditionally focused on promoting business and trade, Commerce must adapt to capitalize on advances in AI while countering China’s efforts to dominate critical technology sectors. By taking a more proactive role in accelerating technology innovation and adoption, strengthening partnerships with industry, and shaping international technology standards, Commerce can drive U.S. leadership in AI and other strategic industries.

¹ Henry Kissinger, et al., [Genesis: Artificial Intelligence, Hope, and the Human Spirit](#), Little, Brown and Company at 137 (2024).

- **Launch an Agentic AI Acceleration Initiative (A3I).** Agentic AI systems are poised to transform entire industries, enabling the automated execution of complex tasks across sectors and varied use-cases.² The federal government, led by Commerce’s National Institute of Standards and Technology (NIST), should join forces with leading AI companies to create dynamic testing environments that accelerate breakthroughs in agentic AI. These testbeds should combine government resources with private sector ingenuity, enabling rapid prototyping and scaling of agentic AI systems with applications in areas like autonomous infrastructure, advanced robotics, computational biology, and cyberdefense.³ By bringing together the best minds from government and industry in state-of-the-art facilities, these partnerships could dramatically speed up the development cycle for agentic systems—and drive their adoption in government—turning visionary ideas into deployed solutions that drive progress across critical sectors of the economy.
- **Dominate International Standards Setting for Advanced Networks.** As the backbone of the digital economy, advanced networks are a critical enabler of AI infrastructure. The United States and its partners must counter China's coordinated push to dominate international technology standards, particularly in 6G, with an equally robust response. While China floods standards bodies with representatives and promotes frameworks that could entrench its technological dominance,⁴ the United States—enabled by additional NIST staff—must mobilize a coalition of government agencies, such as the Department of State and Commerce, alongside tech companies, research institutions, and allies and partners. This coalition should deploy technical experts to standards organizations, advocating for standards that promote innovation, secure America's competitive edge, and prevent China from dictating the technical foundations of transformative technologies.

Objective 2: Bolster Techno-Economic Intelligence Capabilities

With advances in AI transforming data analysis and decision-making, and the emergence of increasingly capable AI agents that can work under human supervision, the time is right to modernize Commerce’s approach to assessing and countering technological and economic threats. Currently, fragmented capabilities across bureaus lead to delayed responses and missed opportunities. Establishing a Techno-Economic Intelligence Unit (TEIU) would enable Commerce to anticipate and mitigate threats proactively, leveraging AI-enabled data processing to strengthen U.S. competitiveness in an increasingly dynamic global environment.

- **Bridge the Intelligence Divide.** The TEIU would function as a primary bridge facilitating data sharing and strategy alignment across Commerce, the Department of Defense, and the Intelligence Community. This would include establishing joint analytical teams, developing common assessment frameworks for emerging threats, and sharing best practices for integrating

² An agentic AI system is one that can interact with and utilize multiple external systems and services to accomplish complex tasks, like coordinating between airline booking platforms, calendars, and weather services to plan a trip. Agentic AI operates with a degree of autonomy—meaning it can perceive its environment, make decisions, and take actions to achieve specified goals without needing constant human direction. Some AI leaders are predicting that 2025 will be the year that AI agents “join the workforce” and begin changing companies’ output significantly. See, e.g. Sam Altman, [Reflections](#) (2025). These systems often incorporate elements like goal-oriented planning, self-guided learning, and the ability to adapt to changing conditions.

³ NIST has begun to develop various AI testbeds. See, for example, [Assessing Risks and Impacts of AI](#), National Institute for Standards and Technology (last accessed 2025). Similar efforts, such as testbeds supported by the Department of Energy and the National Science Foundation, integrate government resources like high-performance computing and regulatory flexibility with private sector expertise to enable rapid prototyping and scaling of advanced AI systems. See, for example, [Artificial Intelligence Testbeds at DOE](#), U.S. Department of Energy (last accessed 2025); [NSF Announces New AI Testbed Initiative to Advance Safety and Security of AI Technology](#), National Science Foundation (2024).

⁴ [China is Writing the World’s Technology Rules](#), The Economist (2024).

AI tools into the analytic process. The unit would ensure that timely analysis informs decision-making across export controls, industrial strategy, and supply chain efforts while reducing duplicative efforts.⁵

- **Adopt Advanced Commercial AI Systems.** Equip the TEIU with advanced commercial AI systems tailored to support key functions across Commerce’s bureaus. These tools would enable detailed analysis for export control enforcement by identifying potential violations and high-risk transfers in real time. In supply chain monitoring, AI agents could track trade flows, flag idiosyncrasies, and support humans to develop mitigation actions. For strategic planning, AI-driven analytics would provide actionable insights into global market trends and technological developments.

Objective 3: Organize for Advanced Manufacturing Leadership

To bolster U.S. industrial competitiveness and capitalize on the transformative potential of AI, the Department of Commerce must prioritize strengthening industrial capabilities, enhancing resilience, and accelerating the adoption of advanced technologies across the manufacturing sector. This effort should focus on integrating AI into industrial processes, enabling U.S. manufacturers—particularly small and medium-sized enterprises—to modernize, innovate, and remain competitive in a rapidly evolving global economy. By aligning its policies and programs to support these objectives, Commerce can ensure the U.S. industrial base remains a cornerstone of economic growth and technological leadership.

- **Reorganize Manufacturing-Related Offices Under an Assistant Secretary for Manufacturing and Industrial Strategy.** Manufacturing-related offices are fractured throughout the Department, leading to a lack of policy coordination between programs. The Office of Advanced Manufacturing and the Manufacturing Extension Partnership Program should be moved from NIST and placed under an Assistant Secretary for Manufacturing and Industrial Strategy, along with the Department of Commerce’s Supply Chain Office and CHIPS Program Office. These revitalized offices would help U.S. manufacturers adopt AI, robotics, and other advanced technologies, track the construction of factories of the future, and bolster supply chain resilience.
- **Modernize and Scale the Manufacturing USA and Manufacturing Extension Partnership (MEP) Programs.** Manufacturing USA and MEP are the nation’s flagship programs supporting U.S. manufacturers. MEP is a national network that supports manufacturers in all 50 states, but the program is not organized to help small- and medium-sized firms adopt advanced technologies. These programs receive one tenth of the funding than programs in other industrialized nations.⁶ Funding should be significantly increased to reflect the strategic importance of these programs.

Objective 4: Position the Bureau of Industry and Security for Tech Rivalry

The Bureau of Industry and Security (BIS) operates with outdated legacy systems and insufficient resources, limiting its ability to manage increasingly complex export controls on emerging technologies. Its current structure and mission reflect a post-Cold War focus on nonproliferation and law enforcement

⁵ At present, the Supply Chain Center, housed in the Industry and Analysis unit within the International Trade Administration (ITA), aims to be “the analytic engine for supply chain resiliency policy for the U.S. Government.” The TEIU could consolidate analytic functions across the Department. See [The Decisive Decade: Advancing National Security at the Department of Commerce](#), U.S. Department of Commerce at 30 (2024).

⁶ Sridhar Kota & Tom Mahoney, [Reclaiming America’s Leadership in Advanced Manufacturing](#), MForesight: Alliance for Manufacturing Foresight at 19 (2019).

rather than comprehensive technology security. Moreover, concerns have been raised that export control decisions are at times subject to undue influence from industry.⁷ Modernizing BIS is essential to safeguarding U.S. technological advantages and preventing adversaries from accessing critical capabilities.

- **Implement AI-Enabled Export Control Monitoring.** As an example of how commercial AI platforms can enhance the work of the Department, BIS should receive funding for AI-enabled agentic systems to identify technology transfer risks and violations in real-time by analyzing export data, shipping records, and threat intelligence. These systems, supervised by human experts, would integrate predictive analytics and specialized tools to track both physical and intangible technology transfers.
- **Create a Whistleblower Program for Export Controls.** A whistleblower program modeled after the framework of the program at the Securities and Exchange Commission (SEC)⁸ would provide a confidential mechanism for reporting potential export control violations and regulatory gaps. Employees, contractors, and members of the public could confidentially report potentially illicit behavior, with protections against retaliation and potential monetary awards for significant disclosures. This approach would deter wrongdoing, increase transparency, and help BIS more effectively protect national security interests. Rather than adding a new government office, the whistleblower program could be run by a nonprofit or public-private partnership.

Objective 5: Retool the International Trade Administration

The International Trade Administration (ITA) should shift its focus from global trade promotion that made sense in the era of hyperglobalization, to fostering strategic bilateral and plurilateral trade relationships with trustworthy allies and partners. The ITA should prioritize market economies over their autocratic, state-driven peers. The ITA's deep expertise and international network must be recalibrated to counter competitors like China, which has distorted the global trading system. This transformation would involve leveraging the ITA's industry relationships to align trade efforts with national security and competitiveness goals, including establishing U.S. leadership positions in AI and other areas like quantum computing and biotechnology, prioritizing collaboration with partners in critical sectors, and integrating with broader economic security initiatives. By doing so, the ITA can strengthen U.S. trade leadership while continuing to support exports and investment.

- **Launch a Tech Export Accelerator.** In collaboration with the Department of State, the ITA should launch a Tech Export Accelerator to support the development, structuring, and completion of strategic technology-related commercial transactions abroad by galvanizing U.S. financing, commercial promotion, and advocacy tools, in partnership with U.S. tech firms. The Accelerator would serve as a “one-stop shop” to liaise with U.S. embassies, tech firms, and economic agencies, including the Export-Import Bank (EXIM), the Development Finance Corporation (DFC), and the United States Trade and Development Agency (USTDA) to maintain a pipeline of opportunities for U.S. technology tenders and investment opportunities abroad, leveraging AI tools to maintain an up-to-date database of potential transactions.⁹
- **Forward Deploy Technology Security Units.** Commerce should create specialized units combining commercial, technology, and national security expertise, deployed in domestic tech hubs and at key diplomatic missions. These units would use AI-enabled tools to tackle economic security threats like IP theft, technology transfer risks, and digital trade barriers, liaising with and

⁷ Ana Swanson, [How U.S. Firms Battled a Government Crackdown to Keep Tech Sales to China](#), New York Times (2024).

⁸ [Whistleblower Program](#), U.S. Securities and Exchange Commission (last accessed 2025).

⁹ [Restoring the Sources of Techno-Economic Advantage](#), Special Competitive Studies Project (2022).

offering training to industry and supporting enforcement. By integrating TEIU analytics, collaborating with the Department of the Treasury, the United States Trade Representative (USTR), and the Department of State, and leveraging industry insights, the units would provide early warnings, support outreach to industry on tech threats, and develop strategies to address technology security challenges. The units would also reinforce the presence of Foreign Commercial Service officers and USPTO IP attachés in strategic markets while strengthening coordination between embassy personnel and domestic agencies.

Conclusion

The Department of Commerce must undergo significant modernization to meet the dual challenges of advancing U.S. leadership in AI while countering strategic competitors, particularly China. The proposed reforms—including launching an Agentic AI Acceleration Initiative, establishing a Techno-Economic Intelligence Unit, strengthening focus on advanced manufacturing, modernizing export controls, and retooling the international trade administration—would transform Commerce into an agency better equipped for technological rivalry. By implementing these changes while maintaining its core economic mission, Commerce can effectively promote U.S. technological leadership, protect critical capabilities, and foster strategic economic partnerships in an era of intense global competition.