Budavári Krisztina[◊]

The First National Defense Industrial Strategy of the United States of America

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„The competitive military advantage we enjoy today is the result of capabilities developed by our Services in an era of unchallenged technological dominance. That era has now passed."

General Joseph F. Dunford, Jr., USMC (Ret), 19th Chairman, Joint Chiefs of Staff[1]

The U.S. Department of Defense released its first National Defense Industrial Strategy (NDIS) on January 11, 2024. The purpose of the NDIS is to guide the Department's engagement, policy development, and investment in the industrial base over the next three to five years. Guided by the National Defense Strategy (NDS), the NDIS will catalyze a generational shift from the existing defense industrial base to a more robust, resilient, and dynamic modernized defense industrial base and innovation ecosystem required to defend the United States, its allies and partners, and its interests in the 21st century. Among the many threats and challenges, China's emergence as a „global industrial powerhouse" is a central focus. The strategy provides a strategic vision and path along four strategic priorities – resilient supply chains, workforce readiness, flexible acquisition, and economic deterrence – and emphasizes cooperation and coordination across the U.S. government, the private sector, and international allies and partners. However, implementation and defense budget resources will be critical to achieving the desired impact.

KEYWORDS: defense industrial base, defense industrial strategy, economic deterrence, integrated deterrence, NDIS

Az Amerikai Egyesült Államok első védelmi ipari stratégiája

Az Amerikai Egyesült Államok (USA) védelmi minisztériuma 2024. január 11-én közzétette az USA első Nemzeti Védelmi Ipari Stratégiáját (National Defense Industrial Strategy – NDIS). Az NDIS célja, hogy a következő három-öt éves időtávon irányítsa a védelmi minisztérium elköteleződését, szakpolitikáinak kidolgozását és az ipari bázisba történő beruházásokat. A Nemzeti Védelmi Stratégiával (National Defense Strategy – NDS) összhangban, generációs fejlődést, és egy szilárdabb, rugalmasabb és dinamikusabb, modernizált védelmi ipari bázis és innovációs ökoszisztéma létrehozását tűzte ki célul, ami képes hozzájárulni az Egyesült Államok, szövetségesei és partnerei, valamint az USA érdekei védelméhez a 21. században. A számos fenyegetés és kihívás között Kína „globális ipari hatalommá" válása központi helyet foglal el a stratégiában. Az NDIS négy stratégiai prioritás – rugalmas ellátási láncok, munkaerőpiaci készenlét, rugalmas beszerzési rendszer és gazdasági elrettentés – mentén fogalmazza meg a stratégiai jövőképet és mutat csekevési irányt. Továbbá hangsúlyozza az

[◊] Ludovika-National University of Public Service Doctoral School of Military Sciences – *Ludovika-Nemzeti Közszolgálati Egyetem Hadtudományi Doktori Iskola*; e-mail: budavari.krisztina@uni-nke.hu; https://orcid.org/0000-0002-8531-2278

[1] National Defense Industrial Association (NDIA) 2024, 9.

együttműködés és koordináció fontosságát a kormány, a magánszektor, valamint a szövetségesek és partnerek között. A kívánt hatás eléréséhez azonban a végrehajtás és a védelmi költségvetési források kulcsfontosságúak lesznek.

KULCSSZAVAK: gazdasági elrettentés, integrált elrettentés, NDIS, védelmi ipari bázis, védelmi ipari stratégia

Strategic Environment and Evolvements in the U.S. Dib

„Outproducing your rivals is the key to victory, both on and off the battlefield."[2]

In the current security environment, the strategic thinking of the United States (U.S.) is determined by the re-emergence of great power competition. According to the 2022 National Defense Strategy, „Russia and the [People's Republic of China] PRC pose different challenges. Russia poses an immediate threat to the free and open international system … The PRC, by contrast, is the only competitor with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military, and technological power to advance that objective."[3] The U.S. is currently transforming its defense ecosystem for major conflicts with peer or near-peer adversaries; furthermore, integrated deterrence and supporting its allies and partners – Ukraine, Israel, and Taiwan – makes extensive use of its defense and national capabilities.[4] In the meantime, its global competitors, particularly China, are focused on eroding the economic, technological, and military competitive advantage of the U.S. In light of these developments, it is clear that the defense industrial base (DIB) must possess more robust capabilities, higher readiness, and resilience than it did in the past. However, the defense industrial base has adapted to a different strategic environment over the past decades and is ill-prepared to meet the current challenges.[5]

The contemporary security environment is markedly distinct from that in which the U.S. defense industrial base operated in the post-cold war era. Over the past few decades, the U.S. (and its allies and partners) primarily oriented their armed forces toward fighting more limited counterterrorism and counterinsurgency operations, and that has prompted a corresponding adaptation within the defense industrial base. However, the strategic environment has undergone a profound transformation, resulting in a rapid and significant shift in the short- and long-term demands and requirements placed upon the defense industrial base. In parallel with these, globalization, developments in the economic environment, and technological revolution have also significantly impacted the industry. Over the past decades, the United States has experienced a systematic reduction in its industrial manufacturing capacity,[6] and „the U.S. economy has transitioned from primarily a manufacturing and goods economy to a digital- and services-based economy."[7] A

[2] Slodov, Aaron: A Techno-Industrialist Manifesto.
[3] The White House 2022, 8.
[4] Budavári 2023, 5.
[5] Budavári 2023, 6.
[6] Budavári 2023, 11.
[7] National Defense Industrial Association (NDIA) 2024, 8.

transformation of the labor market has accompanied the structural transformation of the economy. During this transition, „critical components of the U.S. DIB, including the manufacturing sector and skilled trade employment, have atrophied."[8] „From 40 percent of the U.S. gross domestic product (GDP) in the 1960s, manufacturing has shrunk to less than 12 percent today, while shedding more than five million manufacturing jobs from 2000 to 2015 alone."[9] In the defense industrial base, in 1985, the U.S. had 3 million workers; by 2021, it had 1.1 million workers, a reduction of nearly two-thirds.[10] The economy of the U.S. has retained its world-leading role; however, the focus has shifted from manufacturing to developing cutting-edge technologies. Moreover, the improvement in security perceptions, both at governmental and industrial levels, has led to a shift in business models within the defense industry, with an increasing focus on efficiency and economic benefits at the expense of security, and has also led to a reduction in defense budgets. The globalization of supply chains has led to an increase in their complexity, which has increased the lack of their transparency, their risks, and the industry's vulnerability. The supply chains have increasingly included foreign actors and have been geographically outsourced outside the United States, thereby creating highly diverse networks in terms of geographical location and economic and political background. Moreover, significant interdependencies have developed not only between allies and partners, but also between competitors, adversaries and potential enemies, such as China. Concurrently, the number of domestic suppliers has diminished while the concentration in the domestic defense industrial base has grown. Domestic actors have become increasingly specialized in capabilities, with some specific capabilities limited to a few actors, and the proportion of sole-source and single-source suppliers has increased.[11] Currently, the U.S. relies on a single domestic supplier or a largely foreign supply chain for some critical defense capabilities. This compromises the country's ability to produce these capabilities independently.[12] As the 2017 National Security Strategy (NSS) put it: „Today, we rely on single domestic sources for some products and foreign supply chains for others, and we face the possibility of not being able to produce specialized components for the military at home. Support for a vibrant domestic manufacturing sector, a solid defense industrial base, and resilient supply chains is a national priority."[13] In 2023, the National Defense Industrial Association (NDIA) noted that „the powerhouses of industrial readiness – stable and predictable budgets, an experienced and specialized workforce; diversified and modern infrastructure; manufacturing innovation; and sufficient, including idle, capacity have all atrophied …"[14] Moreover, the degree of consolidation in the industry has now reached a point where a government report has identified the industry's structure and reduced competition as a potential national security risk.[15] „By the early 2000s, the number of prime

[8] National Defense Industrial Association (NDIA) 2024, 8.
[9] OSD A&S Industrial Policy 2021, 8.
[10] National Defense Industrial Association (NDIA) 2024, 38.
[11] Budavári 2023, 11-12.
[12] The White House 2017, 29–30.
[13] The White House 2017, 29–30.
[14] National Defense Industrial Association (NDIA) 2024, 41.
[15] Budavári 2023, 40.

contractors had diminished from 51 to 5.[16] (Referred to as the „Big Five": 1. Lockheed Martin [LMT], 2. RTX [RTX], 3. General Dynamics [GD], 4. Boeing Co [BA], 5. Northrop Grumman [NOC]."[17]) In a 2023 survey, „42 percent of the NDIA member companies reported being the sole eligible provider in the U.S. for a defense-related product".[18] This industrial structure has enabled the United States to develop the world's most advanced weapons, which its rivals would take decades to develop independently.[19] However, its defense industrial base cannot necessarily produce these weapons at a speed, scale, and cost, especially in the event of a long-term, high-intensity conflict, and it is not optimized for rapid mobilization either.

The United States' defense industrial base is currently facing several structural challenges. These pose a risk to the ability of the U.S. to maintain its technological competitive advantage and military superiority. Concurrently, the U.S. has the world's largest and most capable national defense industry; its biggest defense companies are stable world leaders, its global Defense Industrial Base (global DIB, or National Technology and Industrial Base [NTIB], which combines the U.S. domestic defense industrial base with the technology, innovation and industrial bases of the United Kingdom, Canada, Australia and New Zealand),[20] means unrivaled defense industrial and innovation capabilities. Also, the U.S. has the most extensive global network of defense relationships (alliances and partnerships) as an enduring asymmetric advantage. Furthermore, developing the defense industrial base and resolving its challenges have been central defense policy issues for several years.[21]

For overcoming external threats and internal challenges, immediate action was needed, as the NDIS put it: „The current and future strategic environment requires immediate, comprehensive, and decisive action in strengthening and modernizing our defense industrial base ecosystem to ensure the security of the United States and our allies and partners. As this strategy makes clear, we must act now."[22]

The National Defense Industrial Strategy (NDIS)

„A resilient defense industrial base (DIB) is a critical element of U.S. power…"[23]

„The 2022 National Defense Strategy (NDS) states that the Department of Defense will prioritize coordinated efforts with the full range of domestic and international partners in the defense ecosystem to fortify the defense industrial base, our logistical systems, and relevant global supply chains against subversion, compromise, and theft."[24] The National Defense

[16] Congressional Research Service (CRS) 2023, 5.
[17] Congressional Research Service (CRS) 2023, 9.
[18] National Defense Industrial Association (NDIA) 2023, 13.
[19] Brands, Hal: How the American War Machine Ran Out of Gas.
[20] Congressional Research Service: Defense Primer: U.S. Defense Industrial Base.
[21] Budavári 2023, 17.
[22] U.S. Department of Defense (DoD) 2023, i.
[23] U.S. Department of Defense (DoD) 2022 a) 23.
[24] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 1.

Industrial Strategy (NDIS) supports the NDS and „offers a strategic vision to coordinate and prioritize actions to build a modernized defense industrial ecosystem that is fully aligned with the NDS."[25] It also calls for sustained collaboration and cooperation among all national and international stakeholders: the entire U.S. government, private industry, and U.S. allies and partners abroad.[26] „DoD's stated context for the NDIS is emerging geopolitical threats, rapidly accelerating technological change, instability and uncertainty in government funding processes, increasing regulation, changing workforce demographics, and significant supply chain disruptions."[27]

The purpose of the strategy is to „drive development of an industrial ecosystem that provides a sustained competitive advantage to the United States over its adversaries."[28] The strategy outlines why a modernized, 21st-century defense industrial ecosystem contributes to the National Defense Strategy's (NDS) objective of Integrated Deterrence by organizing, establishing, and building the foundational elements of military capability.[29] In building these foundational elements, the United States wishes to send a message of reassurance to its international allies and partners and a warning to its adversaries.[30] „The overarching goal [of the strategy] is to make the industrial ecosystem dynamic, responsive, state-of-the-art, resilient, and a deterrent" to the adversaries of the U.S.,[31] in other words, to catalyze a generational evolution towards a more dynamic, more diverse, robust, resilient, secure, innovative, 21-st century modern defense ecosystem and innovation ecosystem.

The Strategic Framework section introduces the priorities – which are the critical areas the NDIS seeks to achieve –, the systemic challenges the Department will need to address, and the strategic approach. The most pressing challenges that need to be addressed are mentioned in the strategy as follows: „underutilization of multi-use technologies; inadequate workforce; inadequate domestic production; non-competitive practices; long lead times and sub-par readiness; the fragility of sub-tier suppliers; lack of market share, over-customization, and obsolescence; instability of procurement; funding uncertainty and constraints and limited visibility into international ally and partner requirements".[32] Building on the strategic framework, the NDIS outlines „four long-term priorities to serve as guiding beacons for industrial action and resource prioritization in support of the development of the modernized defense industrial ecosystem"[33] and those that „will catalyze the changes needed to build a modernized defense industrial ecosystem".[34] Each of the four priorities has associated long-term actions that promote flexibility and dynamic capabilities in the future ecosystem.[35] The

[25] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 1.
[26] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 1.
[27] National Defense Industrial Association (NDIA) 2024, 11.
[28] U.S. Department of Defense (DoD) 2023, 12.
[29] U.S. Department of Defense (DoD) 2023, 12.
[30] U.S. Department of Defense (DoD) 2023, 12.
[31] U.S. Department of Defense (DoD) 2023, 10.
[32] U.S. Department of Defense (DoD) 2023, 10–11.
[33] U.S. Department of Defense (DoD) 2023, 10.
[34] U.S. Department of Defense (DoD) 2023, 12.
[35] U.S. Department of Defense (DoD) 2023, 12.

strategy describes the priorities, actions, and risks posed if the Department fails to act.[36] The following table *(Table 1.)* presents the Strategic Priorities and their definitions. Each priority is complex; many overlap and have interdependencies with other priorities.

Table 1.

NDIS Strategic Priorities & Definitions

(Source: U.S. Department of Defense (DoD) 2023, 14., 26., 33., 43.)

NDIS Strategic Priorities & Definitions	
Priority	***Definition***
RESILIENT SUPPLY CHAINS	The DIB can securely produce the products, services, and technologies needed now and in the future at speed, scale, and cost.
WORKFORCE READINESS	A skilled and sufficiently staffed workforce that is diverse and representative of America.
FLEXIBLE ACQUISITION	Acquisition strategies that strive for dynamic capabilities while balancing efficiency, maintainability, customization and standardization in defense platforms and support systems. Flexible acquisition strategies would result in reduced development times, reduced costs, and increased scalability.
ECONOMIC DETERRENCE	Fair and effective market mechanisms that support a resilient defense industrial ecosystem among the U.S. and close international allies and partners and contribute to economic security and integrated deterrence. Fear of materially reduced access to U.S. markets, technologies, and innovations sows doubt in the minds of potential aggressors.

The following sections of the document introduce the four strategic priorities in detail, the actions to achieve those priorities, the illustrative outcomes/outputs of the actions, and the risks of not reaching them. The four tables below *(Table 2. Table 3., Table 4., Table 5.)*

[36] U.S. Department of Defense (DoD) 2023, 12.

summarize the planned Department of Defense (DoD) actions aimed at each NDIS's priorities and the planned outcomes/outputs.

Table 2.

Strategic Priority: Resilient Supply Chains

(Source: U.S. Department of Defense (DoD) 2023, 24.)

Strategic Priority: Resilient Supply Chains	
Actions	***Illustrative Outcomes/Outputs***
Improve resilience by investing in extra capacity	Increase in DIB capacity
Manage inventory and stockpile planning	Increase in replenishment rate of critical systems in response to Ukraine
Collaborate with Congress on domestic production	Increase in acceptance of legislative proposals that solve challenges
Diversify supplier base	Increase in number of suppliers newly doing business with the Department
Leverage data analytics to improve sub-tier visibility	Increase in number of bottlenecks identified with improved sub-tier visibility
Engage allies and partners in increasing supply chain resilience	Increase in number of purchases made through multilateral and bilateral agreements
Improve Foreign Military Sales (FMS) process	Increase in Foreign Military Sales (FMS)
Enhance industrial cybersecurity	Decrease in cybersecurity incidents targeting DIB members

„To address this priority, the DoD will incentivize industry to improve resilience by investing in extra capacity; manage inventory and stockpile planning to decrease near term risk; continue and expand support for domestic production; drive investment in the organic industrial base and production accelerators; diversify the supplier base and invest in new production methods; leverage data analytics to improve sub-tier visibility to identify and minimize strategic supply chain risks and to manage disruptions proactively; engage allies and partners to expand global defense production and increase supply chain resilience; and improve the Foreign Military Sales process."[37] „The risks of not achieving resilient supply chains include supply and materiel shortfalls; diminished surge capacity; supply chain vulnerability; and falling behind pacing challenges identified in the NDS."[38]

[37] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 1.
[38] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 1.

Table 3.
Strategic Priority: Workforce Readiness
(Source: U.S. Department of Defense (DoD) 2023, 31.)

Strategic Priority: Workforce Readiness	
Actions	***Illustrative Outcomes/Outputs***
Prepare workforce for future technological innovation	Reduction in labor shortages across DIB
Continue targeting defense-critical skill sets in manufacturing and STEM	Reduction in skills gaps in manufacturing and STEM
Increase access to apprenticeship and internship programs	Increase in apprenticeships and internships for high-school and college students to enter the DIB
Destigmatize industrial careers	Reduction in labor shortages in industrial careers
Expand recruitment of non-traditional communities	Increase in non-traditional community representation in DIB workforce

„To address this priority, DoD will work to prepare the workforce for future technological innovation; continue targeting critical skill sets in science, technology, engineering, and mathematics [STEM]; increase access to apprenticeship and internship programs; and reduce stigmatization of industrial careers while expanding recruitment of non-traditional communities."[39] „Insufficient workforce readiness could lead to the inability to successfully onshore critical manufacturing; the inability to compete globally; reduced productivity throughout the full supply chain; and limited innovation."[40]

Table 4.
Strategic Priority: Flexible Acquisition
(Source: U.S. Department of Defense (DoD) 2023, 40.)

Strategic Priority: Flexible Acquisition	
Actions	***Illustrative Outcomes/Outputs***
Broaden platform standards and interoperability	Increase in adoption of open systems architectures across critical programs
Strengthen requirements process to curb scope creep	Increase in adoption of virtual modeling methodologies across critical programs
Prioritize off-the-shelf acquisition	Increase in off-the-shelf acquisition supporting critical programs
Increase access to IP and data rights to	Increase in retention of data rights and

[39] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 1.
[40] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 1.

enhance acquisition and sustainment	intellectual property acquisition
Consider greater use and policy reform of contracting strategies	Increase in range of contracting types and authorities used
Continue to support acquisition reform	Increase in draft legislation targeting defense acquisition reform
Update industrial mobilization authorities and planning to ensure preparedness	Increase in authorities enabling industrial mobilization

„To address this priority, DoD will work to broaden platform standards and interoperability; strengthen requirements to curb »scope creep«; prioritize off-the-shelf acquisition where applicable and reasonable; increase DoD access to intellectual property and data rights to enhance acquisition and sustainment; consider greater use and policy reform of contracting strategies; continue to support acquisition reform; and update industrial mobilization authorities and planning to ensure preparedness.”[41]

„Flexible acquisition planning will allow the DoD to work with a broader set of industry partners and balance the tension between the need for customization and adopting, where appropriate, industry standards. While some level of customization is necessary to meet specific mission requirements and stay ahead of potential adversaries, there are risks associated with excessive customization that hinder the development of a modern industrial ecosystem. Thus, COTS [commercial off-the-shelf] approaches versus customized systems must be balanced to meet warfighter requirements at speed and scale. Failure to balance these risks strategically can significantly hinder the delivery of critical capabilities. Other risks of failure include limited scale; high costs and lengthy development times; technology obsolescence; diminished industrial base resilience; sustainment and logistics challenges; reduced operational effectiveness; and increased technological risk.”[42]

Table 5.

Strategic Priority: Economic Deterrence

(Source: U.S. Department of Defense (DoD) 2023, 48.)

Strategic Priority: Economic Deterrence	
Actions	***Illustrative Outcomes/Outputs***
Strengthen economic security agreements	Increase in bilateral and multilateral economic agreements
Participate in international interoperability standards-setting	Increase in participation in interoperability standards-setting
Fortify alliances to share science and technology	Increase in new alliances and updates to existing alliances to share science and technology

[41] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 2.
[42] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 2.

Limit adversarial ownership and cyber attacks	Increase in enforcement against adversarial ownership
Strengthen prohibited sources policy	Reduction in amounts of source material and products in the DIB being sourced from adversarial entities

„To address this priority, DoD will work to strengthen economic security agreements; enable international interoperability standards through active participation in standards setting bodies; fortify alliances to share science and technology; strengthen enforcement against adversarial ownership and against cyberattacks; and strengthen prohibited sources policies to protect the DIB from adversarial intrusion."[43] „Failing to deter adversarial entities could generate critical economic, supply chain, and infrastructure vulnerabilities; increased costs and reduced defense budgets; a weakened industrial ecosystem; intellectual property theft and adversarial capital IP control; degraded technological edge, innovation, and quality; and eventually lead to the loss of trust and reputation with international partners."[44]

The timeframe of the strategy is three to five years. Still, the document underlines that achieving the ultimate effects will require a generation of effort: „The NDIS aims to provide a vision and strategic framework for how the DoD will foster and drive dynamic production, and build and support a modernized industrial ecosystem over the next three to five years. … our priorities are long-term, perhaps requiring a generation of effort to achieve the desired effects."[45] The document underscores the importance of assessment and reporting. The assessment tools that will be built to measure progress will be developed as part of the classified NDIS implementation plan and „will also provide invaluable data to inform other strategies, such as the NDS."[46] „This strategy, and its associated metrics in the forthcoming classified NDIS implementation plan, will also support inputs to various reports on, and related to, the industrial ecosystem."[47]

The strategy concludes with the summarization of the vision, purpose, goals, and focus of the NDIS: „The United States and its allies and partners require modernized defense industrial capacity that strengthens national defense, and that reassures and supports those countries in the direct path of adversarial influence and aggression. This position of modern industrial strength is a core enduring advantage that will contribute substantially to Integrated Deterrence—not just for the Department but across the U.S. government and with allies and partners."[48] The DoD intends the strategy to be a strong „call to action" for all stakeholders, that is emphasized in the last section: „The nation needs to rally to the common defense. This NDIS is a call to both the public and private sectors for focused, dedicated efforts to build and secure the industrial capability and capacity necessary to ensure our military has the

[43] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 2.
[44] U.S. Department of Defense (DoD): Fact Sheet: National Defense Industrial Strategy. 2.
[45] U.S. Department of Defense (DoD) 2023, 50.
[46] U.S. Department of Defense (DoD) 2023, 50.
[47] U.S. Department of Defense (DoD) 2023, 50.
[48] U.S. Department of Defense (DoD) 2023, 51.

materiel available to deter our potential adversaries, and if necessary, defeat them in battle. This call to action may seem a great cost, but the consequences of inaction or failure are far greater."[49]

NDIS Assessment

„The marriage of technology and manufacturing could be the salvation for which our nation is searching."[50]

The 59-page strategy was published after a period of extensive preparation. The document is unclassified, to use it as a securitization tool (in response to the intensifying U.S.-China great power competition), as well as to support the DoD's declared intention to send a strong signal to industry players, competitors, adversaries, potential enemies and aggressors about U.S. intentions.

The first-ever National Defense Industrial Strategy „arrived at a moment of extreme demand".[51] Geopolitical developments, such as Russia's 2022 invasion of Ukraine, the intensifying competition with China, and Beijing's more assertive and less risk-averse behavior under Xi's leadership, put extreme pressure on the capabilities of the U.S. and its defense industrial base. „The U.S. is supporting partners threatened abroad — including Ukraine, Israel and Taiwan — forcing careful management of American aid and readiness."[52] „Halimah Najieb-Locke, the Pentagon's acting deputy for industrial base policy said: »This strategy is about balancing the tension points.« "[53] In such a demanding environment, the U.S.' defense production (in terms of monthly output) reached a record high level in June 2023.[54] Defense budgets have been on the rise for several years, which is beneficial for the defense industry; however, the opportunity cost of high defense spending can be significant. „While defense spending is sizeable, it is a near-record low as a percentage of the U.S. economy."[55] The President's budget request for fiscal year 2025 was $849.8 billion.[56] This represents about 3 percent of national income.[57] It is a „1 percent increase in spending, but inflation rose at about 3 percent, thus the fiscal 2025 defense request does not keep up with inflation."[58] In a historical context, „current U.S. military spending is higher than at any point of the Cold War in inflation-adjusted terms, but relatively low as a percent of national income".[59] But it's still the most significant in terms of total world military spending („in 2022 the US defense budget accounted for 39 percent of total world military spending"[60]).

[49] U.S. Department of Defense (DoD) 2023, 51.
[50] Slodov, Aaron: A Techno-Industrialist Manifesto.
[51] Robertson, Noah: Pentagon's first industrial strategy calls for 'generational' change.
[52] Robertson, Noah: Pentagon's first industrial strategy calls for 'generational' change.
[53] Robertson, Noah: Pentagon's first industrial strategy calls for 'generational' change.
[54] Congressional Research Service (CRS) 2023, 5-6.
[55] National Defense Industrial Association (NDIA) 2024, 19.
[56] Garamone, Jim, Lopez, Todd C.: DOD's 2025 Budget Request Provides 4.5% Raise for Service Members.
[57] O'Hanlon, Michael E.: U.S. Defense Spending in Historical and International Context.
[58] Garamone, Jim, Lopez, Todd C.: DOD's 2025 Budget Request Provides 4.5% Raise for Service Members.
[59] O'Hanlon, Michael E.: U.S. Defense Spending in Historical and International Context.
[60] SIPRI 2023, 1.

Furthermore, the current extreme performance of the DIB is not in a stable environment; rather, it is in a constantly changing one in terms of the security environment and the regulating environment. There are several significant policies and programs currently underway, including the CHIPS Act, alternative de-risking measures, and the Replicator Initiative (etc.), which present significant challenges for both the government sector and the industry in terms of implementation and in terms of implementation of the NDIS.

The strategy builds on several years of sustained, consistent government efforts. Attention to the DIB increased remarkably during the Trump Administration, and the Biden Administration has continued and increased efforts in this area.[61] Measures and policies related to the industrial manufacturing base and the DIB have been underway for years, many of which are listed in the NDIS. To date, the federal government has enacted industrial policies that guide the NDIS and to regulate the international capital and trade arena, besides other supporting actions, programs, and initiatives.[62]

- „Executive Order (EO) 13806 called for policies that promote a vibrant domestic manufacturing center, a vibrant DIB, and resilient domestic supply chains.
- EO 14017 called for action to strengthen America's supply chains.
- EO 14028 emphasized the need for the private sector to recognize and continuously adapt to the constantly evolving cyber-threat to ensure products are built and operate effectively, while ensuring that critical information and technologies are protected.
- EO 14083 elaborates and expands on the existing list of factors that the Committee on Foreign Investment in the United States (CFIUS) considers when reviewing transactions for national security risks.
- EO 14105 (complementing the CFIUS reform), regulates outbound investments in which United States capital is being invested in certain entities within certain countries of concern, and it provides a mechanism to limit U.S. investment in adversarial defense economies, limiting those adversaries' ability to compete with the U.S. DIB."[63]

Based on a previous analysis of U.S. defense policy[64], the challenges and the reliefs are recognizable. (The strategic threats and challenges are cited in the Foreword and Introduction sections, more specific threats and challenges in each of the Priorities sections.) The NDIS builds on extensive previous government and private sector efforts and years of extensive research, surveys, and consultations with numerous stakeholders. (The most significant studies and policy documents, among several others to provide further evidence of this are: „*Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States. Report to President Donald J. Trump by the Interagency Task Force in Fulfillment of Executive Order 13806.*"[65]; „*Securing Defense-*

[61] Lord, Ellen M., Nadaner, Jeffrey 2021, 15.
[62] U.S. Department of Defense (DoD) 2023, 8–9.
[63] U.S. Department of Defense (DoD) 2023, 8.
[64] See: Budavári 2023.
[65] Office of the Under Secretary of Defense for Aquisition and Sustainment – Office of the Deputy Assistant Secretary of Defense for Industrial Policy (OUSD A&S) 2018.

Critical Supply Chains. An action plan developed in response to President Biden's Executive Order 14017"[66]; „*DoD Strategic Management Plan FY2022-2026*"[67] (SMP); „*Fiscal Year 2020 Industrial Capabilities Report to Congress*"[68]; „*Department of Defense Report. State of Competition within the Defense Industrial Base*"[69]; „*Vital Signs 2023. Posturing the U.S. Defense Industrial Base for Great Power Competition.*"[70]; „*Vital Signs 2024. The Health and Readiness of the Defense Industrial Base.*"[71]; a Hudson Institute paper: „*A 21st Century Defense Industrial Strategy for America."*[72]).

In the DoD Strategic Management Plan FY2022-2026 (SMP) Strategic Goal 2 is „Strengthen Resilience and Adaptability of Our Defense Ecosystem", the Strategic Objective 2.1 is „Shape a 21st-century defense industrial base."[73] Several of the SMP's other strategic goals and their strategic objectives overlap with the priorities and actions of the NDIS, the difference is in the approach, as in the NDIS, they are all subordinated to the main goal, the 21st-century defense industrial ecosystem. DoD report entitled „Securing Defense-Critical Supply Chains. An action plan developed in response to President Biden's Executive Order 14017." identified four "strategic enablers" and eight "cross-cutting recommendations"[74] (provided as Table 6. below); these areas are very similar to the NDIS' Strategic Priorities.

Table 6.
Supply Chain Enablers and Recommendations
(Source: Congressional Research Service (CRS) 2023, 35.;
U.S. Department of Defense (DoD) 2022, 7., 10–11.)

Supply Chain Enablers and Recommendations	
DOD Findings from "Securing Defense-Critical Supply Chains."	
Strategic Enablers	***Cross-Cutting Recommendations***
Workforce (Trade skills through doctoral-level)	1. Build domestic production capacity
Cyber posture (Industrial security, counterintelligence, and cybersecurity)	2. Engage with partners and allies
Manufacturing (Current manufacturing practices, as well as advanced technology like additive manufacturing)	3. Mitigate Foreign Ownership, Control, or Influence (FOCI) and safeguard markets
Small business (The role of key members of DOD supply chains)	4. Conduct data analysis
	5. Aggregate demand
	6. Develop common standards
	7. Update acquisition policies

[66] U.S. Department of Defense (DoD) 2022 b)
[67] U.S. Department of Defense (DoD) 2022 a)
[68] OSD A&S Industrial Policy 2021.
[69] Office of the Under Secretary of Defense for Acquisition and Sustainment (OUSD A&S) 2022.
[70] National Defense Industrial Association (NDIA) 2023.
[71] National Defense Industrial Association (NDIA) 2024.
[72] Lord, Ellen M., Nadaner, Jeffrey 2021.
[73] U.S. Department of Defense (DoD) 2022 a) 23.
[74] U.S. Department of Defense (DoD) 2022 b)

The NDIS focuses on areas where the U.S. perceives a relative disadvantage compared to China, its only strategic rival, i.e. the industrial manufacturing base, and all the related relevant economic and social capabilities that are the enablers of the manufacturing base. (China, on the other hand, is focusing on developing its innovation capabilities.)[75] The strategy highlights the challenge of China's emergence as a „global industrial powerhouse" in a number of key areas,[76] and subsequently, in the Workforce Readiness Priority section, it explicitly states that: „The goals of this initiative are to: … Elevate U.S. manufacturing to world-leading status."[77] (This is not to say that innovation capabilities, as well as science & technology (S&T), have been de-emphasized, but they are primarily (but not exclusively) addressed by the 2023 National Defense Science and Technology Strategy. The primary objectives of the United States regarding China are integrated deterrence, defense of the homeland and U.S. interests, deterring aggression in the international arena, maintaining the U.S.' economic competitive advantage, preserving its technology leadership, and retaining its military superiority. This is achieved through a range of actions at both the priority level (Economic Deterrence Priority) and at lower levels of the strategy. In addition, it targets China's most vulnerable areas (China's Achilles heel: advanced semiconductors, as well as its reliance on the U.S. and its allies and partners for critical defense equipment, critical parts, and technology). It also addresses areas where China has a clear advantage, such as strategic minerals, with the aim of eliminating U.S. reliances and vulnerabilities.

The strategy places great emphasis on cooperation with Washington's allies and international partners (that is the U.S.' enduring asymmetric advantage) and the United States' global Defense Industrial Base. It also emphasizes the importance of sustained cooperation and collaboration at the national level, among all relevant sectors and stakeholders, and introduces measures and approaches to improve cooperation between government and the private sector. Among others, this will be done through an unclassified version of the NDIS implementation plan.[78]

A comprehensive approach across all government departments will be necessary to implement the strategy since it is evident that the priorities and actions outlined affect a number of other departments and agencies besides the DoD. This is explicitly acknowledged and emphasized in the strategy, and it calls for enhanced cooperation and collaboration. However, this approach has been evident in defense industry policies and measures over recent years.

There is also a shifting approach to leveraging national capabilities. The steady deterioration of the security environment since the early 2010s has led to a significant increase in defense budgets globally, resulting in a substantial increase in demand for the defense industry bases. In the early period (late 2010s), countries viewed their defense industries as an economic stimulus tool, but this approach has been reversed. As it can be observed in the NDIS also, all the national capabilities are now used to support defense and

[75] See: Budavári 2024a; .Budavári 2024b.
[76] U.S. Department of Defense (DoD) 2023, 8.
[77] U.S. Department of Defense (DoD) 2023, 29.
[78] Robertson, Noah: Pentagon's first industrial strategy calls for 'generational' change.

security objectives. This can be seen particularly in the Resilient Supply Chains Priority section, the Workforce Readiness Priority section, and the Economic Deterrence Priority section. Furthermore, the strategy explicitly states: „This NDIS recognizes that America's economic security and national security are mutually reinforcing and, ultimately, the nation's military strength depends partly on our overall economic strength."[79]

The NDIS responds to and seeks to capitalize on key global defense industry trends. It strongly emphasizes exploiting the potential of innovative and flexible SMEs, encouraging and supporting SMEs to enter the defense industry. It also promotes the exploitation of the potential of dual-use and civilian technologies (which is particularly important given China's „military-civil fusion" strategy, which aims to maximize the potential of civilian and dual-use technologies in the defense sector).

The strategy does not say much about the attribution of resources. Still, in the Conclusion section, there is a statement that shows the DoD's commitment to providing the necessary funds: „Within the Department, we will establish the conditions for success including by promoting appropriate, consistent, and predictable funding where possible."[80]

Conclusion

> *„Some might say restoring our defense industrial and manufacturing base dominance will require nothing less than a miracle. The truth is, the United States and its military organizations have performed similar »miracles« before."*[81]

„In conclusion, [the U.S.] defense industrial base has reached an inflection point in its history regarding the balance between its vulnerabilities and its opportunities for modernization and reform." [82] Based on a previous assessment of U.S. defense policy[83] the NDIS has not brought along any surprises, it is aligned with relevant security strategies (NSS, NDS) and other related sectoral and policy objectives, and it is consistent with the previously set relevant goals. It supports the main strategic goals of the NDS and builds on the U.S.' enduring advantages, which are defined in the NDS. The implementation of the strategy will require significant resources, time, and sustained coordinated efforts in the long run. „The DoD and Congress must make more substantial, sustained, and predictable financial investments to rebuild the U.S. DIB strategic endurance and resilience. As reasserted in a 2021 DoD report … the order of magnitude of financial investment is in the billions, not millions, of dollars."[84] But in the current security environment, this significant pivot is necessary to preserve the economic competitive advantage and military superiority of the U.S., protect U.S. interests, deter U.S. adversaries and aggression in the international arena, and, should deterrence fail, defend the U.S., its allies and partners, and „defeat any nation that

[79] U.S. Department of Defense (DoD) 2023, 8.
[80] U.S. Department of Defense (DoD) 2023, 51.
[81] Lord, Ellen M., Nadaner, Jeffrey 2021, 25.
[82] Lord, Ellen M., Nadaner, Jeffrey 2021, 25.
[83] See: Budavári 2023.
[84] National Defense Industrial Association (NDIA) 2024, 51.

attempts to harm the security of the United States, [its] allies, and partners"[85]. Bipartisan consensus will be key to success; however, as Assistant Secretary of Defense for Industrial Base Policy Laura D. Taylor-Kale highlighted at the launching event of the NDIS, „she was confirmed bipartisan" .[86] „The issues around the defense industrial base are ones that Republicans and Democrats care about. It is important to really understand that defense industrial policy and … industrial policy in general, really crosses a lot of lines."[87]

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[85] U.S. Department of Defense (DoD) 2023, i.
[86] Center for Strategic and International Studies (CSIS): TRANSCRIPT. Event:"The National Defense Industrial Strategy: The Way Ahead." 16.
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