CHAPTER 16

BATTLERACE FOR INDUSTRIAL POWER

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We must apply ourselves to our task with the same resolution, the same sense of urgency, the same spirit of patriotism and sacrifice as we would show were we at war.

– Franklin D. Roosevelt
Fireside Chat, December 29, 1940

Introduction: The New Industrial Battlerace

In the twenty-first century, industrial policy has reemerged—not as a relic of past economic planning but as a central instrument of geopolitical strategy.[1] Once dismissed as

DOI: 10.71236/NDGX5069

inefficient or outdated, state-directed efforts to shape industrial capacity, control supply chains, and accelerate technological innovation are now essential to national power.[2]

Driving this shift is not merely the pursuit of growth, but a recognition that industrial strength is inseparable from national security, global influence, and strategic autonomy.

At the forefront of this battlerace[3] stands China, whose rise as a technological superpower has upended assumptions about globalization and liberal market primacy. Through initiatives like *Made in China 2025* and the *dual circulation* strategy, Beijing has moved from low-cost manufacturing to industrial dominance, challenging U.S. and European leadership across key sectors—from semiconductors to green energy.

In response, the United States and Europe are recalibrating. Washington is investing heavily in domestic production and technological leadership through landmark legislation like the CHIPS and Science Act and the Inflation Reduction Act. Europe is pursuing a strategy of "de-risking": aiming to reduce strategic dependence on China while preserving trade openness and sustainability.[4]

Beyond national efforts, alliances such as the Quad and AUKUS are evolving into industrial security coalitions, linking economic resilience with defense cooperation. These partnerships signal a world in which economic and security competitions are no longer distinct; they are overlapping theaters of strategic rivalry.

This chapter contends that today's industrial policy revival marks the emergence of a new global battlerace, one that will define not just who leads in key technologies, but who sets the rules in international systems. At stake is the architecture of global trade, innovation ecosystems, and the geopolitical balance of the 21st century.

Why Industrial Policy is Back

The resurgence of industrial policy is one of the defining shifts of the twenty-first-century global landscape.[5] For decades, advanced economies relied on market-driven approaches, confident that globalization, free trade, and private-sector innovation would ensure prosperity and stability. Today, that confidence has eroded. Governments are stepping back into the economic field—not merely to stimulate growth, but to secure national survival, technological leadership, and geopolitical advantage.

Four Converging Forces Drive the Industrial Policy Revival

A powerful shift is underway. Four converging forces are driving governments across the world to reassert state influence over industrial strategy, transforming what was once seen as economic management into a core pillar of national security.

1. **Geopolitical Competition**

   The rise of China as an economic and technological

challenger has shattered the post-Cold War assumption that economic integration would reduce strategic rivalry. Industrial capacity has become a frontline domain of great power competition. Control over sectors such as semiconductors,[6] artificial intelligence,[7] aerospace,[8] and renewable energy now determines not just economic outcomes,[9] but also military readiness, intelligence superiority, and diplomatic leverage.[10]

2. **Supply Chain Fragility**

   The COVID-19 pandemic exposed the vulnerabilities of a hyper-globalized production system.[11] Disruptions in medical equipment, semiconductors, rare earths, and other goods revealed the dangers of concentrated supply chains and dependency on unstable or adversarial regions.[12] Countries now face an urgent imperative: rebuild domestic capacity and forge more resilient, diversified production networks to withstand future shocks.[13]

3. **Technological Disruption**

   Breakthroughs in artificial intelligence, quantum computing, and biotechnology are accelerating the pace of change, raising the costs of falling behind.[14] No longer content to leave these critical domains to market forces alone, governments are investing strategically through public-private partnerships, targeted R&D,

and regulatory frameworks to secure leadership in the industries of the future.

4. **The Resilience Imperative**

   From energy insecurity and cyber threats to pandemic preparedness and infrastructure vulnerability, states now confront a spectrum of systemic risks that demand integrated responses. Industrial policy has reemerged as a key instrument, not just to drive economic performance, but also to harden critical infrastructure, align development with security priorities, and build national resilience in an era of uncertainty.[15]

Together, these forces are propelling China, the United States, and Europe into an intensifying race for industrial dominance. While they face shared pressures, their strategies differ in critical ways—differences that will shape the emerging global order.

National Approaches: Competing Models of Industrial Power

The return of industrial policy is reshaping the global economy.[16] Across major powers, industrial strategies are being recalibrated to account for rising geopolitical competition,[17] fragile supply chains, and accelerating technological disruptions. While China, the United States, and Europe all aim to secure their industrial bases, their

approaches diverge sharply—each shaped by distinct histories, strategic cultures, and governance models.

China's Model: State-Led Technonationalism

China has embraced the most sweeping and assertive form of industrial policy among the world's major powers: state-led technonationalism.[18] Since the founding of the People's Republic in 1949, Beijing has treated industrial capacity as a foundation of national power. That strategy has evolved dramatically, from Maoist central planning to Deng-era liberalization to today's fusion of authoritarian governance with cutting-edge innovation.[19]

In its early decades, China's economy was dominated by rigid central planning and heavy industry—steel, coal, and military production—often disrupted by political upheavals such as the Great Leap Forward and the Cultural Revolution. Reforms initiated in 1978 under Deng Xiaoping began shifting the system toward market mechanisms, foreign investment,[20] and export-led growth, laying the groundwork for China's global rise.

The decisive transformation, however, has come in the past two decades. China no longer aims merely to catch up with the West but to surpass it in critical technologies. This ambition is encoded in flagship programs such as the *Medium- and Long-Term Program of Science and Technology Development* (2006–2020),[21] and, most prominently, *Made in China 2025*, which identified ten strategic sectors—from

advanced IT and robotics to aerospace, biomedicine, and new energy vehicles—where China seeks not just to compete, but also dominate.[22]

Today, China's technonationalist model is characterized by vast state subsidies, directed R&D investments, preferential treatment for domestic firms, and the cultivation of national champions capable of shaping global markets.[23] Equally important is Beijing's control over key supply chains, particularly in rare earths, lithium batteries, and solar components, creating chokepoints that can be leveraged in geopolitical negotiations.[24] The 2020 *dual circulation* strategy reinforced this approach by aiming for self-sufficiency in high-tech sectors while maintaining global export leadership.[25]

Yet China's model faces mounting resistance. Major economies increasingly view China's industrial ascent as a threat to fair competition and technological sovereignty.[26] Allegations of forced technology transfers, cyber-enabled intellectual property (IP) theft, and opaque state subsidies have triggered a wave of defensive measures: export controls, investment screenings, and retaliatory tariffs.[27]

At the heart of this backlash is deeper concerns: China's model poses not just an economic challenge but also a systemic one. By blending authoritarian control with rapid industrial innovation, Beijing presents an alternative to liberal capitalism—one that accelerates technological advancement

while raising fundamental questions about global governance, transparency, and trust.

America's Strategy: Security-Centric Industrial Realignment

Since early 2025, Washington has redefined industrial policy as a central instrument of national security. Rejecting both the hands-off economic orthodoxy of previous decades and the centralized state-planning model typified by China, the United States has adopted a hybrid approach. This combines targeted domestic intervention with alliance-based coordination to strengthen critical sectors, mitigate vulnerabilities, and safeguard technological leadership.

Domestically, the federal government has expanded the use of Defense Production Act (DPA) authorities, accelerated permitting processes, and introduced new tax incentives to stimulate investment in strategic industries, including semiconductors, aerospace, artificial intelligence, and critical minerals. Recent executive orders on critical mineral supply chains have invoked Section 232 of the Trade Expansion Act to justify tariffs and restrictions aimed at boosting domestic mining, processing, and refining capacity.

In parallel, export controls administered by the Bureau of Industry and Security have been tightened to limit the transfer of sensitive dual-use technologies to strategic competitors. Complementing these are enhanced screening mechanisms for outbound investment and strengthened enforcement of

intellectual property (IP) protections—measures designed to prevent the erosion of the U.S. innovation base.

What sets the U.S. approach apart is the strategic use of alliances to multiply industrial power. Through platforms like the Quad and AUKUS, the United States is partnering with trusted allies to co-develop advanced technologies, coordinate export controls, and diversify supply chains. The Department of Defense's Partnership for Indo-Pacific Industrial Resilience (PIPIR) operationalizes this cooperation by facilitating regional sustainment hubs, reducing production bottlenecks, and aligning investments across fourteen Indo-Pacific partners.[28] Reinforcing these efforts, the 2023 National Defense Industrial Strategy underscores the need for resilient supply chains, a skilled workforce, agile procurement systems, and robust public-private partnerships.[29]

This is not a retreat from globalization, but a strategic recalibration. Often described as "friend-shoring," "ally-shoring," "near-shoring," or "re-shoring," the intent is to preserve the benefits of open markets while reorienting the most sensitive and consequential elements of industrial production toward secure, rules-based networks.[30]

In sum, America is not walking away from global economic integration—it is reshaping it.[31] By placing national security at the center of its industrial policy and reinforcing ties with like-minded partners, Washington is positioning itself to compete effectively in an era of strategic rivalry and competitive multipolarity.

Europe's Path: De-Risking Without Decoupling

In the intensifying landscape of industrial competition, Europe has charted a third path, which is distinct from both China's state-directed Technonationalism and the United States' security-centric industrial strategy. Rather than pursue outright decoupling from China, the European Union (EU) has embraced a more measured approach: strategic de-risking.[32] The objective is to reduce critical dependencies while preserving the openness of global markets, particularly in sectors where economic interdependence remains beneficial.

This doctrine, articulated by European Commission President Ursula von der Leyen, draws from Europe's unique geopolitical position, economic integration, and normative commitments.[33] Rather than using defense authorities or industrial alliances as primary tools, Europe relies on regulatory strength to shape global standards and secure its industrial base. The EU's industrial strategy prioritizes technological sovereignty in strategic sectors,[34] particularly semiconductors, cloud computing, cybersecurity, and green technologies like renewable energy, hydrogen, and electric vehicles under the broader framework of the *European Green Deal*.

Europe's influence is amplified through what scholars call the "Brussels effect," the extraterritorial impact of EU regulations on global markets.[35] Flagship rules like the *General Data Protection Regulation*, the *Digital Markets Act*,

and the upcoming *Critical Raw Materials Act* aim to secure Europe's digital and resource autonomy while nudging global firms toward European norms on privacy, competition, and sustainability.[36]

At the same time, structural vulnerabilities persist. The EU's internal market consists of highly diverse member economies, creating disparities in industrial capacity and innovation. The war in Ukraine exposed Europe's dependence on external energy sources, spurring urgent efforts to reduce reliance not only on Russian gas but also on Chinese-dominated supply chains for rare earths, critical minerals, and battery components.

In response, Brussels is advancing a series of diversification measures, ranging from domestic investments in strategic materials to new trade and industrial partnerships with the United States, Japan, South Korea, and Australia. Nevertheless, European policymakers remain cautious about adopting the more assertive, security-centric posture evident in Washington. While transatlantic coordination is deepening, Europe continues to emphasize autonomy, multilateralism, and a rules-based order over bloc-based confrontation.[37]

Ultimately, Europe's strategy is one of deliberate balance: reinforcing industrial resilience without defaulting to protectionism, safeguarding technological leadership without rejecting globalization, and advancing competitiveness while upholding core values of sustainability, human rights, and cooperative governance. In doing so, Europe is not retreating

from the global economy but reconfiguring its engagement on terms that reflect its institutional identity and geopolitical realities.

The Evolution of Industrial Policy: From Mercantilism to the Modern Era

Throughout history, industrial policy has served as a vital instrument of statecraft—a means by which nations shape economic deployment to secure power in the global order. Though the tools, actors, and priorities have evolved across centuries, the core logic remains unchanged: states intervene in markets not merely to stimulate growth, but to build resilience, project strength, and protect strategic advantage.

Early Foundations

The origins of industrial policy trace back to the mercantilist era of the 17th and 18th centuries, when European powers such as Britain and France sought to maximize exports, accumulate wealth, and gain strategic advantage through tightly controlled trade networks. Policies like the *Navigation Acts* restricted colonial commerce to domestic shipping, while state-chartered enterprises like the French East India Company operated with monopolies, subsidies, and political backing to expand imperial reach and economic influence.[38]

By the 19th century, the United States adopted similar protective strategies. Tariffs shielded emerging industries

from foreign competition, while land grants fueled the growth of railroads, steel, and manufacturing. These early interventions laid the foundation for the industrial rise of great powers and set the stage for more sophisticated state involvement in the 20th century.

The Cold War and the Space Race

The post-World War II era marked a pivotal shift in industrial policy. As the United States and the Soviet Union entered a high-stakes geopolitical rivalry, technological supremacy became a national imperative. Industrial policy evolved beyond tariffs and subsidies into large-scale state investments in research, development, and education, driven by the logic that innovation was essential to security and global influence.

In the United States, institutions like the Office of Scientific Research and Development (OSRD), the National Science Foundation (NSF), and the Defense Advanced Research Projects Agency (DARPA) propelled advances in aerospace, computing, and nuclear energy. The Soviet Union's launch of Sputnik I in 1957 triggered a profound policy response—a "Sputnik moment" that catalyzed a surge in federal funding for science and technology, space exploration, and STEM education.[39]

This Cold War-era industrial mobilization forged an enduring model: state-driven innovation as a strategic instrument of power. That model reverberates today, as

China's technological ascent prompts a new round of industrial recalibrations in Washington and beyond.

Power Industrialization Models

In the decades following World War II, many nations adopted industrial policies to accelerate development and enhance competitiveness. One of the most influential approaches emerged in East Asia, where Japan's postwar economic transformation, often labeled as "developmental state capitalism," combined export-led growth, targeted R&D, and close coordination between government and industry. This model, executed through powerful institutions like the Ministry of International Trade and Industry (MITI),[40] proved highly effective due to disciplined investment, focused industrial targeting, and strong state capacity.[41]

South Korea and Taiwan adopted similar strategies, nurturing globally competitive sectors such as electronics, shipbuilding, and advanced manufacturing. These cases demonstrate that when aligned with institutional competence and long-term planning, state-guided industrialization could yield remarkable gains.

However, industrial policy was far from universally successful. In Latin America and parts of Africa, mid-20th-century import-substitution strategies often produced inefficient, overprotected industries with limited innovation and stagnant growth.[42] Argentina, for example, pursued self-sufficiency at the expense of cost competitiveness, leading to

isolation and structural imbalances. By contrast, resource-rich countries, such as Chile, Brazil, and the Gulf States, experienced mixed outcomes—success often hinged on their ability to balance state intervention with market openness and institutional discipline.

These contrasting experiences reveal a critical lesson: the success of industrial policy depends not merely on ambition but on governance, adaptability, and effective execution in the face of shifting global dynamics.

The Contemporary Context

In the 21st century, industrial policy has returned to the forefront of geopolitical strategy, driven by the rise of multipolar competition, rapid technological disruption, and a cascade of global risks. Much like the United States' Cold War response to Sputnik, China's technological surge has triggered renewed waves of public investment, alliance coordination, and strategic industrial planning across advanced economies.

Yet today's challenge is far more complex. Unlike the Soviet Union, China is deeply embedded in global supply chains, making disentanglement costly, slow, and destabilizing. For the United States, Europe, and other actors, balancing the imperative for resilience and security with the economic realities of interdependence demands not only industrial capacity but also sophisticated policy design and multilateral collaboration.[43]

As nations navigate this new industrial era, they confront the same enduring dilemmas that have shaped state-market relations for centuries: how to foster innovation without stifling competition; how to protect strategic sectors without triggering protectionism, and how to align national industrial goals with the demands of a globalized, interconnected economy.

The answer to these questions will shape not only the next phase of global competition, but it will also shape the architecture of cooperation that underpins the international order.

Protectionism and Its Discontents

While classical free-market economic principles argue for minimal state intervention, the reality is more complicated and nuanced. Nations have long shaped their economies, particularly when national security, technological leadership, or resilience is at stake. Yet excessive protectionism through blanket tariffs, broad trade barriers, or market distortions can stifle innovation, inflate costs, and undermine long-term growth, and could have a disruptive impact on the economic conditions.

The core challenge for 21st-century policymakers is to calibrate intervention carefully: supporting strategic sectors and securing supply chains without sliding into economic isolationism or triggering retaliatory trade conflict. In an era of intensifying competition and global interdependence, the

line between strategic protection and self-defeating insularity is dangerously thin.

China's Protectionist Playbook

No country has developed protectionist tools more systematically or effectively in recent decades than China. While often framed as "infant industry protection," Beijing's strategy combines a range of interventions designed to shield domestic firms, cultivate national champions, and tilt global markets in its favor.[44]

Key elements of this approach include:

- High tariffs that make foreign goods less competitive than local alternatives.
- Non-tariff barriers, such as opaque regulatory requirements and technical standards that hinder foreign market access.
- Forced technology transfer, requiring foreign firms to share proprietary knowledge as a condition for doing business in China.
- Massive subsidies and preferential treatment for domestic firms, including cheap credit, favorable procurement, and regulatory advantages.
- Currency management that keeps exports attractively priced in global markets.

This multi-pronged strategy has underpinned China's ascent across a wide range of industries, from steel and shipbuilding to semiconductors, electric vehicles, and renewable energy. By fusing state support with global integration, Beijing has carved out competitive advantages that challenge both market norms and international trade rules.

Impact on Global Trade and Economic Order

China's protectionist industrial model has produced a set of destabilizing systemic effects across the global economy:[45]

- Persistent trade imbalance, especially with advanced economies, has contributed to deindustrialization and labor dislocation abroad.
- Asymmetric market access advantages Chinese firms internationally while restricting foreign entry into China's domestic markets.
- Market distortions arise from heavy state backing, allowing Chinese firms to outcompete rivals not through efficiency, but through policy-engineered cost advantages.

These dynamics challenge the credibility of the rules-based global trade system. As former U.S. National Security Advisor, Jake Sullivan has warned, China's "non-market economy" poses foundational risks to fair competition and global economic governance.[46] Left unchecked, these

distortions could erode trust in international trade norms and fragment global markets along geopolitical lines.

The Geopolitical Stakes

China's protectionism is not just an economic tactic—it is a strategic lever of geopolitical power. By dominating critical industries and controlling key supply chains (from rare earths to advanced batteries), Beijing enhances its global influence, shapes dependency relationships, and increases its bargaining leverage on the world stage.

Initiatives like *Made in China 2025* and *China Standards 2035* reveal the broader ambition:[47] this is not simply about domestic development, but about reordering the global technological hierarchy to reflect Chinese interests and standards. The result has been growing anxiety among advanced economies, which now recognize the strategic risk of overdependence and the urgent need to rebuild and secure their own industrial foundations.[48]

Finding the Right Balance

Governments are right to defend key sectors and reduce strategic vulnerabilities, but the temptation to overreach is strong and costly. Excessive protectionism risks provoking retaliation, inflating prices, suppressing innovation, and fragmenting global markets.[49] The policy challenge for the

21st century is to navigate a narrow path between strategic intervention and economic isolationism.

To strike that balance, policymakers should:

- Use targeted, proportional tools to support critical industries while avoiding sweeping trade barriers that distort markets.
- Coordinate with allies and partners to confront unfair trade practices through collective, rules-based responses.
- Invest domestically in education, R&D, infrastructure, and innovation ecosystems to build long-term competitiveness and reduce dependence on defensive economic measures.

In an era of multipolar rivalry, the line between industrial policy and protectionism will define more than economic outcomes; it will shape the stability and legitimacy of the global order.[50] Navigating this delicate equilibrium will be one of the defining tests of 21st-century economic statecraft.

These systemic pressures, rooted in China's protectionist architecture, set the stage for more targeted confrontation over *Made in China 2025*, where industrial strategy, not just trade dynamics, becomes the arena of strategic rivalry.

Made in China 2025: Blueprint and Blowback

When China unveiled its *Made in China 2025* strategy, it

declared a bold and unambiguous ambition to move beyond its role as the "world's factory" and become the world's leading technological power. Released in 2015, the plan outlined a sweeping roadmap to upgrade China's industrial base across 10 high-tech sectors—from semiconductors and aerospace to electronic components, advanced robotics, and biotechnology. It marked a decisive departure from low-cost, labor-intensive manufacturing toward innovation-driven, high-value production.

A stake is far more than domestic transformation. *Made in China 2025* is a blueprint to reshape the global distribution of technological power, and with it, the future balance of geopolitical influence.

Core Goals of Made in China 2025

Beijing's objectives under *Made in China 2025* are ambitious and strategic, aimed at securing long-term technological dominance and industrial resilience.[51]

The plan sets four key goals:

- Achieve technological self-sufficiency in critical industries by reducing dependence on foreign suppliers and external innovation.
- Dominate global markets in high-tech sectors by securing over 70% of domestic production in key components and expanding China's global export share.

- Upgrade domestic manufacturing by moving up the value chain, shifting from low-cost assembly to advanced, innovative-driven production.
- Foster indigenous innovation by building national R&D capacity, nurturing national champions, and accelerating homegrown technological breakthroughs.

These priorities are closely aligned with China's broader *dual-circulation* strategy,[52] which seeks to fortify the domestic economy and internal innovation base while maintaining selective integration with global markets,[53] making China more resilient to external shocks, sanctions, and supply chain disruptions.

Global Backlash and Strategic Frictions

While China presents *Made in China 2025* as a pathway to modernization, many countries view it as a direct industrial challenge to fair competition and global norms. The plan's sweeping ambitions to dominate high-tech sectors have provoked growing alarm over Beijing's strategic methods, including:

- Opaque procurement practices and restricted market access, disadvantaging foreign firms.
- Forced technology transfers and intellectual property theft, often required as conditions for market entry.

- Aggressive subsidization, enabling state-backed firms to undercut competitors and threaten monopoly control in key sectors.[54]

In response, governments have begun to push back.[55] The United States has imposed tariffs, expanded export controls, and scrutinized Chinese investment in sensitive technologies. Europe and Japan have pursued supply chain diversification, strengthened technology protections, and intensified coordination with trusted partners. Yet all remain wary of provoking a full-scale decoupling that could fracture the global economy.[56]

Strategic Stakes for the Future

Made in China 2025 has accelerated the global technology race, compelling governments worldwide to reevaluate their industrial strategies, innovation ecosystems, and national resilience frameworks. China's success will depend not only on meeting it ambitious targets, but also on managing growing external resistance and navigating the complex shift from scale-driven to innovation-driven growth.

For the international system, the implications are far-reaching. This is not merely a contest over advanced manufacturing or artificial intelligence—it is a struggle over who defines technological standards,[57] sets the rules of global trade, and wields the strategic levers of power in the 21st century.

Counterstrategies: The United States, Europe, and Allies

Global industrial competition has reached a pivotal inflection point. Advanced economies are reassessing their industrial strategies in response to China's rising dominance across critical sectors, from advanced manufacturing and emerging technologies to raw materials and rare earth supply chains. Beijing's sweeping control over upstream inputs and downstream production has exposed structural vulnerabilities in countries that spent decades offshoring capabilities and hollowing out domestic industry. The result is a renewed focus on resilience, reindustrialization, and allied coordination.

Responding to the Challenge

China's state-driven industrial expansion has triggered a global recalibration. The United States, Europe, and key Indo-Pacific partners are increasingly aligning economic policy with national security objectives. While approaches differ in emphasis and execution, a common thread runs through them all: industrial strength is now inseparable from strategic power.

U.S. Strategy: Security-Driven Industrial Realignment

In 2025, the United States adopted a security-centric industrial strategy that is grounded in resilience, capacity-building, and assertive economic statecraft.

Key pillars include:

- **Revitalization of Strategic Sectors**

  Targeted use of tools like the Defense Production Act (DPA), fast-tracked permitting, and federal incentives to strengthen domestic capacity in semiconductors, aerospace, advanced computing, energy systems, and critical materials.

- **Resilient and Secure Supply Chains**

  Executive orders and trade authorities (e.g., Section 232) aimed at reducing dependence on foreign sources for critical minerals,[58] batteries, and pharmaceutical ingredients by expanding domestic extraction, processing, and stockpiling.

- **Technology Protection and Control**

  Expansion of export controls (under BIS), outbound investment screening (CFIUS and new Treasury authorities), and IP enforcement to prevent the transfer of sensitive or dual-use technologies to strategic competitors.[59]

- **Alliance-Driven Industrial Cooperation**

  Deepened co-production agreements, tech standardization (e.g., AI safety benchmarks), and R&D integration through frameworks like the Quad, AUKUS, and bilateral industrial accords with Japan, South Korea, the UK, and others.

- **Defense Industrial Base Modernization**

  Implementation of the 2023 National Defense Industrial Strategy (NDIS) to increase procurement speed, strengthen public-private partnerships, and ensure surge readiness in defense-relevant industries.[60]

- **Investment Facilitation for Strategic Projects**

  Establishment of the U.S. Investment Accelerator (EO 14255) to streamline billion-dollar investments in priority sectors by coordinating federal agencies, reducing permitting delays, and aligning national laboratories and regulatory support.[61]

This strategy reflects a marked shift from global integration to strategic separation, fortifying the U.S. industrial base not only for economic gain but to ensure strategic leverage in an era of enduring rivalry.

The European Strategy: De-Risking with Integration

Brussels has taken a calibrated path: rather than sever economic ties with China, it is building shock absorbers. In 2025, the EU began deploying sharper tools to reduce coercive dependencies without abandoning openness:

- **Net-Zero Industry Act (NZIA)**

  A framework to boost EU's manufacturing capacity for net-zero technologies, secondary rules were adopted in May 2025. Streamlines permitting and allocates financing to EU-based clean-tech industries, while

mandating resilience and sustainability standards in public procurement and auctions.[62]

- **Supply Chain Diversification and Strategic Stockpiles**

  Pursuing alternative sourcing agreements in Africa, Latin America, and Central Asia, and expanding stockpiles of critical inputs to reduce short-term vulnerability.[63]

- **Technological Sovereignty Agenda**

  The Chips Act for Europe and Horizon Europe funding target breakthroughs in AI, quantum computing, biotechnology, and cybersecurity, securing innovation autonomy in key domains.[64]

Allied Indo-Pacific Initiatives: Strategic Convergence

Key U.S. allies in the Indo-Pacific have recalibrated their industrial strategies to address growing economic and technological competition from China:

- **Japan**

  The 2022 *Economic Security Promotion Act* was expanded in April 2025 to include hydrogen infrastructure and impose export restrictions on advanced chip making equipment.[65]

- **South Korea**

  The February 2025 *K-Chip Act* amendment increased tax credits for semiconductor facility investments and

extended R&D incentives through 2031, aiming to boost domestic chip manufacturing and stabilize energy inputs.

- **India**

  The fourth round of *Production-Linked Incentives (February 2025)* added secure communications equipment and AI servers to its subsidy portfolio, reinforcing the *Atmanirbhar Bharat* (Self-Reliant India) initiative's defense-tech priorities.[66]

The Power of Collaboration

Beyond domestic strategies, both the United States and Europe increasingly recognize the strategic importance of alliances in shaping the emerging industrial and technological order. Collaborative frameworks—often described as "friend-shoring," "ally-shoring," "near-shoring, and "re-shoring"—aim to build secure, diversified, and value-based supply chains among trusted partners. These efforts not only mitigate economic coercion but also share standards and innovation ecosystems.

Key examples include:

- **The Quad (Australia, India, Japan, U.S.)**

  While not a formal alliance, the Quad has intensified cooperation on supply chain resilience, semiconductor coordination, critical and emerging technologies, and technology governance, often through working groups

and ministerial dialogues.

- **AUKUS (Australia, UK, U.S.):**
  Initially focused on nuclear-powered submarine development, AUKUS has expanded into Pillar II, which includes collaboration on advanced capabilities such as AI, quantum technologies, undersea systems, and cyber defense, areas with significant industrial and strategic relevance.

These frameworks serve as geoeconomic multipliers and security compacts, amplifying collective leverage, fostering industrial interoperability, and offering viable alternatives to state-directed dependency models.

The Road Ahead

The race for industrial leadership is intensifying. The future of the global economy—and with it, the geopolitical balance—will hinge on how effectively nations mobilize strategic industries, secure critical supply chains, and foster innovation through trusted partnerships. In this environment, industrial capacity has become a cornerstone of strategic power.

By blending targeted investments, regulatory alignment, and alliance-driven collaboration, advanced economies are reshaping globalization—not by withdrawing from it, but by reengineering its architecture around resilience, security, and trust. This is the foundation of a new strategic order, where

industrial and technological leadership is shared among a network of capable and coordinated partners.

Quad and AUKUS: Industrial Security Alliances

In today's contested multipolar environment, economic and security interests have converged. The Quad and AUKUS have emerged as institutional frameworks that operationalize this convergence, linking industrial capacity, technological development, and strategic deterrence.

The Quad: Strategic Coordination for a Resilient Region

What began as a maritime security forum has evolved into a coordination platform for regional economic resilience and technological security. Since the meeting on January 21, 2025, Quad priorities reflect a sharpened focus on strategic alignment in critical domains:[67]

1. **Emerging Technology Cooperation**

   Working groups advance collaboration in AI, quantum computing, cybersecurity, and advanced telecommunications—capabilities that promote innovation and strategic advantage.

2. **Semiconductor Supply Chain Resilience**

   Joint efforts aim to diversify fabrication, increase transparency, and bolster trusted capacity across the semiconductor ecosystem, reducing overreliance on concentrated nodes in East Asia.

3. **Coordinated Economic Security**

   The Quad has launched a critical minerals partnership, an early-warning network for supply chain disruption, and a screening dialogue on outbound investment and project risk, together strengthening shared resilience.

These initiatives translate diplomatic solidarity into practical industrial deterrence, offering Indo-Pacific states a rules-based alternative to coercive economic dependence while reinforcing the region's collective capacity to innovate and compete.

AUKUS: Integrated Defense Industrial Collaboration

AUKUS represents a deeper model of allied industrial integration,[68] grounded in shared defense needs and advanced capability development.[69] While the nuclear-powered submarine initiative remains central, the partnership has broadened under Pillar II, which includes:

1. **Joint Capability Development**

   Collaborative projects in AI, quantum technologies, cyber defense, and undersea systems aim to preserve qualitative advantages and ensure interoperability across key domains.[70]

2. **Defense Industrial Base Integration**

   Partners are harmonizing export controls, aligning procurement standards, and co-investing in production

capacity to streamline cross-border defense manufacturing and technology sharing.

3. **Workforce and Innovation Ecosystems**

   AUKUS supports joint STEM initiatives, innovation hubs, and dual-use R&D platforms, recognizing that industrial resilience also depends on talent pipelines and innovation ecosystems.

This approach reflects a shift in alliance strategy—from procurement coordination to co-development and co-production. AUKUS illustrates how trusted defense partners can create a shared industrial base capable of sustaining strategic advantage.

Strategic Implications

Together, the Quad and AUKUS represent a new era of alliance design—one where industrial policy and strategic deterrence are fused. These frameworks serve not only as counterweights to authoritarian models but also as proactive architectures for economic and technological governance.

They reduce vulnerability to coercion, broaden access to trusted supply chains, and provide smaller partners with viable alternatives to concentrated dependencies. As these alliances deepen, they are constructing the scaffolding of collective resilience, defining the institutional and industrial foundations of a stable Indo-Pacific order.

U.S. National Strategies and the Manufacturing Renaissance

Amid intensifying geopolitical competition, the United States has adopted a more integrated economic-security approach, recognizing that a robust defense industrial base underpins both deterrence and long-term strategic power. This shift is evident in expanded industrial alliances such as the Quad and AUKUS, and in new frameworks like the National Defense Industrial Strategy (NDIS) and the Partnership for Indo-Pacific Industrial Resilience (PIPIR).[71]

The National Defense Industrial Strategy

Released in 2023, the NDIS lays out a roadmap to modernize and strengthen the U.S. defense industrial base around four strategic pillars:[72]

1. **Resilient Supply Chains:**

   Diversifying sources and eliminating single points of failure to secure access to critical components and technologies.

2. **Workforce Readiness:**

   Building talent pipelines through education, apprenticeships, and targeted skilling in mission-critical sectors.

3. **Flexible Acquisition:**

   Reforming procurement processes to enable speed, scale, and innovation across defense systems.

4. **Economic Deterrence:**

   Using industrial coordination and fair market mechanisms to safeguard advantage and counter manipulation.[73]

At its core, NDIS aims to revitalize the U.S. defense ecosystem through public-private partnerships, risk-sharing investments, and sustained innovation.[74]

The Partnership for Indo-Pacific Industrial Resilience

Complementing NDIS, PIPIR extends U.S. industrial cooperation to key Indo-Pacific and Euro-Atlantic partners.[75] Its objectives include:[76]

1. **Reducing Production Barriers**

   Harmonizing regulations and licensing to streamline cross-border defense manufacturing.

2. **Creating Sustainment Hubs**

   Establishing regional maintenance, repair, and overhaul (MRO) sites to shorten supply lines and boost operational tempo.

3. **Mitigating Supply Chain Risks**

   Coordinating among partners to counter dependencies on adversarial networks.

A core innovation is the Regional Sustainment Framework (RSF), which decentralizes logistics and leverages allied industrial capacity for shared MRO operations, enhancing interoperability, cost-efficiency, and surge readiness.[77]

Global Endorsement: The Shangri-La Statements

At the 2024 Shangri-La Dialogue, the United States introduced a *Statement of Principles for Indo-Pacific Defense Industrial Base Collaboration*,[78] endorsed by several regional partners. It affirms three shared commitments: (1) strengthening collective resilience, (2) advancing workforce readiness, and (3) fostering joint defense innovation.

Momentum accelerated at the 2025 Dialogue, where Secretary of Defense Pete Hegseth announced the first operational PIPIR projects, including radar sustainment facilities in Australia and standardized frameworks for unmanned aerial systems across allies.[79]

Strategic Significance

These initiatives reflect a critical shift: the industrial base is now a domain of strategic competition. No nation, not even the United States, can sustain modern defense alone. By building a federated industrial ecosystem with trusted allies,

Washington seeks to maintain its technological edge, reinforce operational readiness, and offer a collaborative counter-model to authoritarian state capitalism.

Revitalizing American Manufacturing: A National Strategy for Strategic Resilience

At the core of America's response to intensifying global competition lies a critical realization: The United States cannot project strength abroad if it cannot produce at home. Revitalizing domestic manufacturing has reemerged as a national imperative—not just to drive growth but also to enhance security, restore technological leadership, and fortify supply chains against disruption.

Manufacturing as a Strategic Asset

U.S. national strategy increasingly views the industrial base not as a legacy sector, but as a cornerstone of strategic resilience.[80] Reindustrialization efforts center on three reinforcing pillars:[81]

1. **Technological Leadership**

   Advancing the adoption of frontier technologies, including AI, robotics, smart manufacturing systems, and advanced materials to sustain a competitive edge.

2. **Workforce Development**

   Expanding education pipelines, apprenticeships, and upskilling initiatives to build a modern industrial

workforce capable of operating in data-rich, automated environments.

3. **Supply Chain Resilience**

   Reducing foreign dependencies, diversifying sourcing, and expanding domestic capacity in critical inputs such as semiconductors, rare earths, and industrial components.

Strategic Investments

Federal initiatives have catalyzed a wave of investments into foundational sectors, semiconductors, artificial intelligence, and industrial infrastructure. These efforts are increasingly concentrated in regional tech hubs that align federal support with private-sector capacity and academic research, seeding next-generation manufacturing ecosystems across the country.[82]

The Power of Partnership

At the center of this strategy is collaboration. Government cannot manufacture at scale, and the private sector cannot do it alone. Public-private partnerships, spanning industry, academia, and national laboratories are essential to translate R&D into production, connect innovation to market needs, and ensure that skilled labor is available where new industrial clusters take root.

America's manufacturing revival is not about returning to the past. It is about positioning for the future. In an era of contested supply chains, technological rivalries, and systemic shocks, the ability to build, adapt, and scale at home is becoming the decisive variable of national power. The manufacturing renaissance is thus more than economic policy—it is an industrial deterrent and a foundation of strategic autonomy.

Conclusion: Industrial Power and Strategic Advantage

In today's contested geopolitical landscape, industrial policy has become a strategic imperative. Once seen as the domain of economists and technocrats, it now anchors national security strategies and alliance frameworks. The United States, China, and Europe are each redefining the role of the state in setting industrial policy and redefining manufacturing, not merely to boost competitiveness, but to shape the global order itself.

China's model fuses authoritarian control with industrial planning to secure self-sufficiency, dominate global markets, and tilt international norms. The U.S. has responded with a hybrid approach—combining public investment, private innovation, and industrial coordination with trusted partners. Europe's strategy reflects regulatory assertiveness and "de-risking," preserving openness while curbing dependence.

Despite different models, all three powers now treat industrial capacity as essential to national resilience,

technological leadership, and global influence. This shift is more than economic; it is strategic. Industrial policy is now a tool of deterrence, a platform for innovation, and a foundation for alliance cohesion.

Initiatives like the U.S. NDIS, PIPIR, the EU's Net-Zero Industry Act, and joint ventures through Quad and AUKUS signal a shared recognition: no single country can secure its future alone. Resilient supply chains, interoperable production networks, and innovation ecosystems built on shared values are the new levers of power.

The stakes extend beyond great power rivalry. Decisions made now will shape the integrity of global supply chains, the governance of critical technologies, and the direction of the global economy. There are real dangers—protectionism, technological fragmentation, and systemic distrust—but also real opportunities: to reinvigorate domestic industries, renew alliances, and promote a rules-based order rooted in transparency and mutual benefit.

In this emerging era of competitive multipolarity, the nations that succeed will be those that can translate industrial strategy into a durable strategic advantage, without losing sight of the collaborative frameworks that global stability requires.

What is at stake is not only who leads, but also what kind of world they will establish.

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