



Strategic localization: balancing risk, value, and technology sovereignty in aerospace and defense supply chains

Executive summary	1
Introduction	3
Background	3
Current perspective	4
Strategic drivers and constraints in localization	5
Methodology	5
Stakeholder selection criteria	5
Localization strategy framework	6
Business case evaluation	6
A balanced approach for localization	6
Key drivers of localization strategies	7
Balancing the trade-offs	14
Opportunities and constraints of onshoring and reshoring	16
Strategic models and degrees of localization	17
Multi-country shoring model	17
Regional hybrid shoring model	18
Domestic reshoring model	18
Strategic enablers of localized growth	20
Internal levers	20
External enablers	24
Phased transition planning	26
Government support	27
Conclusion	30

Executive summary

Supply chain executives emphasize the continued role of global sourcing, friendshoring, and global partnerships as complementary strategies, which had led to a consistent US trade surplus within their evolving operating models. The practice itself produces outcomes that can reduce risk, improve our surge capacity, and strengthen tech sovereignty. These outcomes are not management add-ons, but structural consequences of how supply networks are re-architected when production is deliberately anchored in the United States and trusted allies.

A new joint study by Kearney and the Aerospace Industries Association (AIA) examines reshoring and onshoring initiatives within the US aerospace manufacturing sector, focusing on how companies approach localization to support a more sustainable, secure, and competitive supply chain network. The research found that, faced with rising exposure to global supply chain shocks, nearly 60 percent of aerospace and defense (A&D) companies are considering localization strategies, and 15 percent have already navigated or developed their reshoring/onshoring strategies. Relying on foreign suppliers for critical minerals and components can present risk in conflict, and policy shifts such as Section 232 tariffs have underscored the opportunity to expand the domestic supply chain.

The role of government in enabling localization

Industry leaders point to seven areas where government action is especially important:

- **Workforce development.** Expand training grants, tax credits, and apprenticeships, and develop public-private partnerships to recruit and reskill Department of War (DOW) contractors in contracting, compliance, and digital procurement.
- **Policy clarity and alignment.** Create a unified DOW framework, and publish criteria for awarding manufacturing and R&D support. Aligning with such frameworks also reinforces firms' ability to address compliance considerations such as International Traffic in Arms Regulations (ITAR) and other national security-related requirements.
- **Government-industry coordination.** Adopt unified cybersecurity standards, expand Defense Production Act (DPA) Title III, maintain strategic stockpiles, and co-fund dual-use technology pilots. These steps stabilize costs and reduce vulnerability.
- **Small business support.** Expand Small Business Administration (SBA) financial tools, strengthen DOW-small business partnerships, and create a DOW-SBA ombudsman. Local supplier ecosystems are essential for dual sourcing and resilience.
- **Domestic investment and advanced manufacturing.** Streamline permitting, expand dual-use tech investments, scale innovation models for the Defense Advanced Research Projects Agency (DARPA) and Air Force Research Laboratory (AFRL), and continue to modernize facilities. Advanced manufacturing enables localized plants to be cost-competitive, offsetting labor and material volatility.
- **Cost mitigation and financial support.** Alleviate supply chain pressures, adopt multiyear agreements, provide contractor tax credits, and create a stabilization fund. These measures turn resilience into measurable value.
- **Critical minerals strategy.** Expand reserves, scale recycling and urban mining, utilize trade agreements, and launch a national demand study with an action plan. Securing upstream inputs is both a risk-reduction and tech-sovereignty imperative.

Risk-value-sovereignty in practice

Executives underscored three reinforcing dynamics of localization:

- **Risk reduction.** Dual sourcing, regional proximity, and policy leverage all emerge as embedded features of local supply networks, ensuring continuity, agility, and compliance.
- **Value creation.** Localization reshapes where innovation happens and how costs are stabilized. Dual sourcing and modular design provide a “resilience ROI,” while allied production nodes secure market access and accelerate technology exchange.
- **Technology sovereignty.** By localizing sensitive production, firms protect IP, invest in advanced automation, and rebuild upstream tooling capacity. These measures ensure long-term competitiveness and national-security alignment.

Geopolitics and the rising costs of material and labor are fueling the need for reindustrialization, requiring some degree of domestic onshoring. However, stakeholders say that without targeted government partnerships, localization efforts will remain fragmented and costly.

Strategic localization is not simply reshoring; it is a dynamic continuum with trusted allies that simultaneously reduces risk, creates value, and secures technological sovereignty. Coordinated action across both domestic and international dimensions can strengthen resilience across the A&D supply chain and sustain long-term national competitiveness.

**Strategic
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Localizing manufacturing isn't a binary decision to onshore or not. It's a dynamic operating model designed to deliver long-term competitiveness and national security. Coupling industry action with government support offers the clearest path forward.

Overreliance on a limited number of countries for critical components has revealed strategic vulnerabilities.

Introduction

Background

A&D supply chains have undergone several evolutions of efficiency and resiliency strategies. Trade liberalization in the late 1990s resulted in manufacturing capacity shifts, paving the way for more efficient global supply chains. This enabled companies to access specialized capabilities, lower costs, and broader innovation networks, fueling competitiveness and technological advancement. Many companies developed international supply chains for a finished product with value-added activities dispersed across several countries. Globalization continued through the early 2000s, supporting scale economies, faster innovation, and growth of locally owned companies in emerging economies.

Over the past five years, major events such as the COVID-19 pandemic and escalating geopolitical conflicts, particularly in Europe and the Indo-Pacific region, have exposed the vulnerability of global supply chains. Overreliance on a limited number of countries for critical components, such as rare earth minerals, has revealed strategic vulnerabilities. Globalization has provided efficiency and innovation advantages, but these disruptions have highlighted the limitations, particularly in areas tied to national security. These dynamics have prompted a shift away from efficiency-driven models toward a renewed focus on supply chain resiliency, national interest, and reindustrialization in advanced economies.

Current perspective

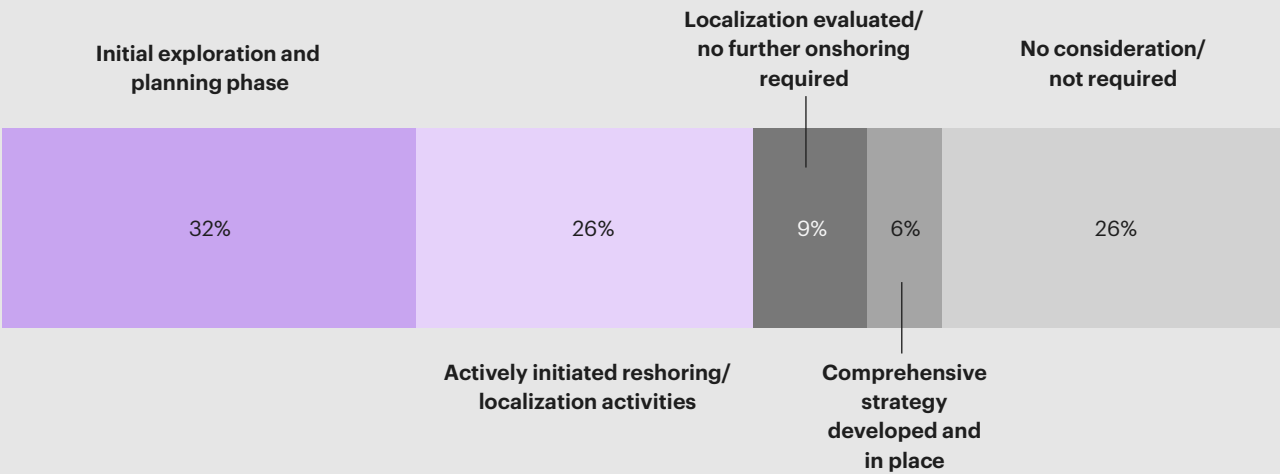
This shift has intensified the debate between onshoring and offshoring. Offshoring remains attractive for cost and specialization, while global models offer advantages such as scale, access to advanced technologies, and diversified talent pools. At the same time, the risks associated with tariffs, export controls, and policy uncertainty are prompting companies to explore more localized sourcing models. Nearly 60 percent of A&D stakeholders say they have considered or are pursuing localization strategies that balance operational flexibility with long-term resilience. In addition, 15 percent of companies have already navigated or are planning their reshoring or onshoring strategies (see figure 1).

According to Kearney’s [2025 Reshoring Index](#), the percentage of CEOs planning to reshore part of their operations within the next three years grew by 15 percent compared with the prior year. Our study also reveals a shift in motivations, with geopolitical risk management emerging alongside cost and resilience as leading drivers of reshoring decisions. This reflects a more dynamic landscape where both globalization and localization are being reassessed, with companies seeking to optimize for resilience without losing the benefits of global reach.

Technology and AI are playing pivotal roles in this transition. By supporting smarter decision-making and more agile supply chain structures, these tools help companies build hybrid shoring models that integrate global reach with localized resilience. In practice, this approach is less about choosing between globalization and localization and more about striking a balance between risk and value, reinforcing supply chains that can withstand disruption while also capturing efficiency, innovation, and competitiveness, while advancing technology sovereignty to reduce dependency risks and strengthen long-term control over critical capabilities.

Figure 1
Nearly 60 percent of US A&D companies are still early in localization

Stage of localization efforts among US aerospace and defense companies
(% of companies surveyed, n=34)



Source: Kearney–Aerospace Industries Association Aerospace and Defense Supply Chain Localization Study

Strategic drivers and constraints in localization

Localization is facing significant headwinds. Cost-driven offshore decisions, historically justified by lower costs for labor and production, are being reevaluated due to geopolitical risks and supply chain volatility. Dual-site strategies have emerged as a way to mitigate risk, allowing companies to balance cost efficiency with operational resilience. However, regulatory constraints and compliance burdens continue to challenge agility and responsiveness.

Shocks including pandemic-related breakdowns, international conflicts, and tariff uncertainty have accelerated the urgency of localization. Many A&D companies view this shift as moving from a long-term consideration to a more immediate priority. Ensuring continuity, compliance, and competitiveness now requires a more deliberate and strategic approach to supply chain design, one that integrates resilience and reindustrialization into the core of operational planning.

Methodology

The section outlines the criteria used to select study participants, the localization strategy framework, and a business case evaluation to shed light on the factors and motivations for reshoring and onshoring.

Stakeholder selection criteria

We used a structured approach to identify and categorize key companies in the A&D industry. Based on a sample of more than 30 industry players, companies were segmented by business type and grouped by customer sector (see figure 2).

Figure 2
Study methodology categorizes A&D companies across four dimensions

Stakeholder selection criteria

1	Identify key A&D companies	30 companies	- Based on Aerospace Industries Association membership - Kearney research and interviews
2	Define stakeholder seniority	10 CXOs 12 VP+ 6 directors 2 government relations	Roles span executive, operational, and procurement/supply chain leadership
3	Segment by business type	6 OEMs 18 suppliers 6 others	- Representation across the full supply chain 6 OEMs, 6 tier 1s, 12 tier 2-3s, 6 other providers (space, solutions, private equity)
4	Classify by customer sector	Defense 60% Commercial 40%	Differentiates companies by primary and secondary market orientation

Note: The data is considered representative, with about 40 percent of the surveyed companies generating more than \$1 billion in annual revenue and coverage spanning the full value chain and both commercial and defense sectors.
Source: Kearney–Aerospace Industries Association Aerospace and Defense Supply Chain Localization Study

Localization strategy framework

This framework captures the motivations and challenges of a diverse role of stakeholders, industry tiers, and operational models. It reflects both the strategic intent and the operational realities of navigating complex global supply chains, balancing cost efficiency with resilience, and responding to evolving regulatory and geopolitical pressures. The framework offers a comprehensive view of the gradual but deliberate shift away from traditional offshoring, where minimizing costs once dominated decision-making, and toward models that emphasize flexibility, proximity to end markets, and supply assurance.

To develop this framework, we followed a three-step process:

- Conduct interviews and surveys to capture the perspectives of OEMs, tier 1 to tier 3 suppliers, and other industry players, including private equity companies and solution providers.
- Pinpoint the strategic priorities, such as risk mitigation, demand responsiveness, and cost-competitiveness, alongside the operational realities, including supplier readiness and infrastructure constraints.
- Structure the insights into an integrated model that links motivations, challenges, and outcomes.

This approach ensured that the framework reflects both the strategic imperatives and the execution challenges while also providing a foundation for the business case evaluation.

Business case evaluation

The business case explores the causes identified through the localization framework, highlighting specific opportunities and challenges that stakeholders are facing. The range of reshoring and offshoring strategies that are shaping the US A&D industry reflects how companies pursue localization and their buyer-supplier relationships. Three dominant approaches emerged in stakeholder interviews: multi-country shoring, regional hybrid shoring, and domestic reshoring. We used this framework to assess how each strategy addresses structural and strategic supply chain factors such as cost, risk, resilience, and supplier footprint. These themes informed the development of both short-term and long-term road maps to guide strategic decision-making.

A balanced approach for localization

Many A&D companies are reassessing the balance between global and localized supply chains. Competitive advantages include improved agility, shorter lead times, and enhanced national security, while challenges such as higher labor costs, limited domestic capacity, and regulatory complexity remain. Disruptions such as global conflicts, pandemic bottlenecks, and trade policy changes have exposed vulnerabilities in offshore-dependent models, prompting many organizations to explore reshoring and hybrid-shoring.

Our interviews reflect a range of views: some companies are delaying action amid tariff uncertainty, others are addressing internal bottlenecks, and a few have already committed to domestic sourcing. Many are aligning with customer expectations, while others acknowledge the risks of overdependence on non-US suppliers.

Our localization strategy framework offers a comprehensive view of the gradual but deliberate shift away from traditional offshoring.

Key drivers of localization strategies

We used the localization framework to assess how onshoring, offshoring, and hybrid strategies have evolved. What we found is that six factors are shaping localization strategies in the A&D sector (see figure 3).

Business constraints

As localization becomes a strategic priority, companies are expanding their focus beyond cost to include quality, lead time, resilience, and supply chain transparency. Although cost is still a factor, it is no longer the dominant driver. Instead, operational control, compliance, and reliability are being prioritized, especially in response to recent disruptions and shifting customer expectations. Domestic suppliers are favored for their alignment with regulatory standards and ability to support secure, resilient operations.

“If you’ve got 99 parts and you’re waiting on the 100th, you don’t have a product.”

– president and CEO, tier 1 and tier 2 aerospace supplier

Quality is consistently emphasized as a non-negotiable in supplier selection and sourcing decisions. Supplier performance history, process control, and transparency are strong indicators of quality. Although issues can occur in both domestic and international supply chains, local suppliers allow for quicker resolutions with on-site visits and real-time communications that are not slowed by time-zone differences.

Figure 3
Six factors are shaping localization strategies in the A&D sector

Key drivers of localization strategies



Source: Kearney analysis

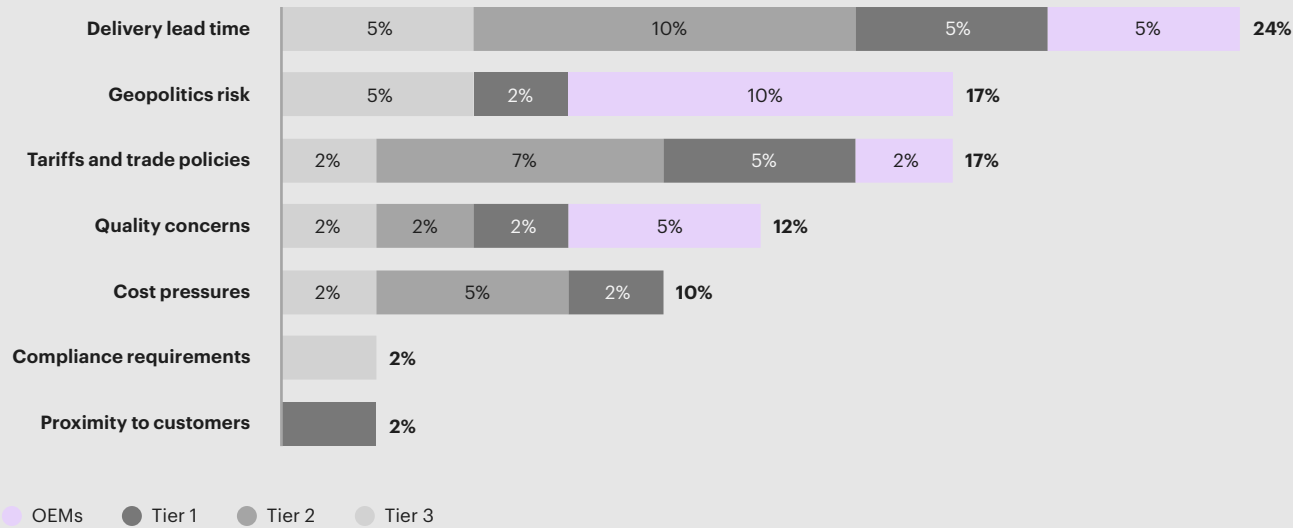
Resilience is the top priority when it comes to localization strategies, even as cost continues to influence sourcing decisions. Long-term supplier relationships are shaped by quality, reliability, and the ability to withstand disruptions rather than by considering price alone.

Lastly, 24 percent of survey respondents say delivery lead time is the main factor in their localization decisions (see figure 4). Lead times are lengthening, largely due to geopolitical risks and supply chain disruptions. One stakeholder noted that local sourcing can reduce delivery times and exposure to global shocks. Although localization can also make lead times more predictable, companies recognize that these benefits often come with higher costs.

Lead times are lengthening, largely due to geopolitical risks and supply chain disruptions.

Figure 4
Nearly a quarter of companies say delivery lead time is the main factor in their localization decisions

Main factors influencing localization efforts
(% of companies surveyed, n=27)



Note: Respondents may select more than one option for this question. 17% of surveyed companies selected “not applicable” because there is no clear localization driver.
Source: Kearney–Aerospace Industries Association Aerospace and Defense Supply Chain Localization Study

Materials and sourcing

A&D companies are facing more regulatory and compliance challenges, particularly around material traceability.

Supplier transparency and traceability challenges

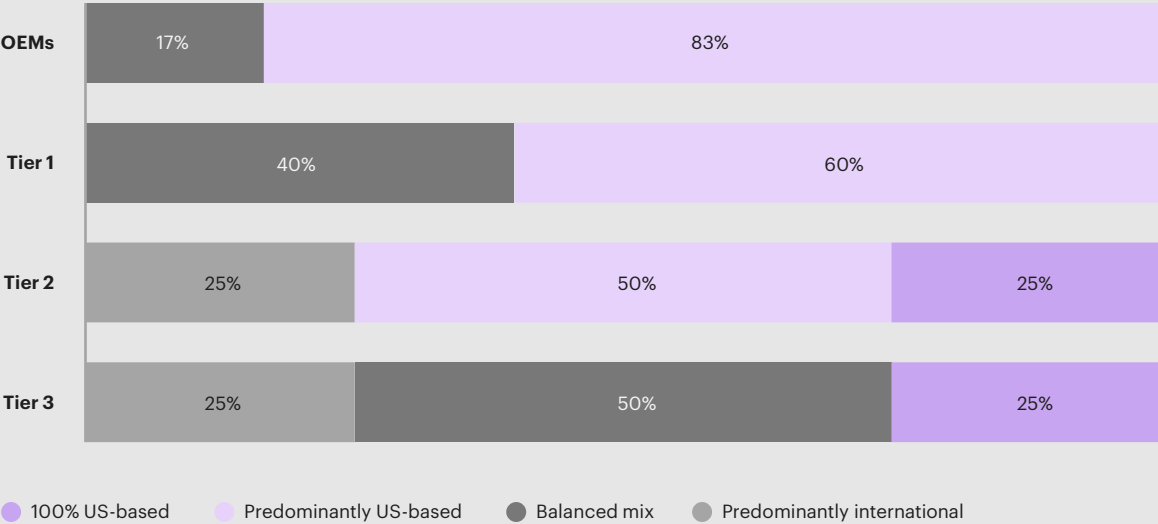
Many companies report limited visibility into the origin of raw materials, especially when sourced through global supply chains. Although components may be assembled in the United States, raw materials and subcomponents are often globally sourced, undermining compliance efforts and complicating localization strategies. Top-tier companies primarily source locally, but lower-tier suppliers rely more on international materials, indicating that the downstream value chain is largely dependent on overseas inputs (see figure 5).

This lack of traceability is particularly problematic for defense programs, where assurance of material provenance is crucial. Primes and OEMs are therefore demanding greater supply chain transparency, not only about the country of origin but also about risk exposures that could jeopardize defense programs. However, there is much less visibility beyond tier 2 due to the complexity of part-level nodes, overlapping source-controlled intellectual property, and intellectual property barriers with build-to-spec—leaving companies dependent on trust and relationships rather than on full transparency. Tracing data to the elemental level is rare, as suppliers often blend lots from multiple mines, while existing data-mining solutions lack fidelity. Smaller sub-tier suppliers also lack the systems and sophistication to provide detailed traceability.

Figure 5
OEMs and tier 1 companies mainly source locally, while lower tiers depend more on overseas inputs

Supply base

(% of companies surveyed, n = 27)



Source: Kearney–Aerospace Industries Association Aerospace and Defense Supply Chain Localization Study

Restricted supplier choice

Supplier selection is often constrained by customer-directed sources and short approved lists, limiting flexibility to localize or switch vendors. This structure centralizes quality oversight; but it also reduces adaptability when lead times spike or tariffs shift, and it moves compliance responsibilities upstream to the customer. OEMs and large tier 1s are also consolidating their supply chains, awarding larger packages to fewer suppliers with broader capabilities, improving oversight and leverage but often excluding smaller domestic shops from major programs.

In defense programs, national security requirements frequently mandate US-sourced materials and in-country supply chains, extending to tier 1 and tier 2 suppliers. These constraints narrow the supplier options due to strict quality and compliance standards. As one interviewee noted, “Each customer gives us a list of approved suppliers; it’s a very small pool to pick from.” Many reshoring efforts are reactive and customer-driven, tied to specific procurement shifts rather than a broader internal localization strategy.

OEMs and tier 1 suppliers are awarding larger packages to fewer suppliers with broader capabilities.

Critical mineral dependence

This limited supplier base is strained by fragile access to critical minerals that are essential to the A&D industry. In July 2025, AIA submitted [feedback to the Department of Energy](#), emphasizing challenges in securing high-purity inputs, most of which are still sourced internationally due to limited domestic refining capacity and growing geopolitical tensions. According to Kearney’s article on [rare earth supply chains](#), China dominates global production and processing, accounting for more than 70 percent of output and 85 percent of refining. This concentration, now reinforced by export restrictions, has deepened US reliance and exposed manufacturers to disruptions, price volatility, and Section 232 tariff risks.

Stakeholders highlight concern about jet engine materials that are non-substitutable due to strict performance requirements. For example, magnets made with rare earth minerals are crucial to [F-35 fighter jets](#). Russia’s VSMPO, formerly a major titanium supplier to large OEMs, left a significant gap with its exit. And tariffs on Brazil adding 40 percent on niobium imports could exacerbate sourcing risks because there are few alternate sources. The United States also lacks ore deposits for some minerals, including niobium.

Reshoring raw material production is hindered by technical and certification requirements as well as the capital intensity of refining. For example, building a titanium sponge facility could cost billions of dollars, with ROI horizons of 10 to 20 years. High-use materials such as titanium sponge, gallium, and rare earth elements stand out as priority areas for domestic investment, strategic alliances, and policy action to safeguard long-term supply security.

Customer marketplace

Several A&D companies are taking a local-for-local manufacturing approach, producing components in the same geographic region where they are sold, often in response to customer mandates or offset requirements. This strategy supports compliance with national policies, improves responsiveness to local demand, and reduces lead times. For suppliers, this creates growth opportunities when customers expand their domestic supply chains, but it also introduces new challenges, particularly around data localization and export control regulations, which complicate efforts to balance allied collaboration with national security.

“We may switch around some engine manufacturing, but we’ll go where our customers want us to go.”

– global supply chain VP, OEM

Building on this trend, proximity to customers has emerged as another crucial dimension of localization. Indeed, proximity delivers speed, reliability, and strategic advantage. Although domestic sourcing may carry higher upfront costs, it enables faster response times, predictable lead times, and better alignment with demand. Being closer reduces risks from tariffs, geopolitics, and shipping delays while fostering collaboration through joint planning, workforce development, and quicker issue resolution. In regulated industries, it enhances compliance, traceability, and IP security while also aligning with government mandates. As a result, customers value this reliability and flexibility, often paying a premium for the long-term resilience and savings that proximity can provide.

At the same time, offset programs add a layer of complexity and are a powerful influence on sourcing strategies, shaping decisions in both commercial and defense sectors, particularly in foreign military sales and commercial exports. Many countries, including India, Saudi Arabia, and South Korea, require industrial participation as part of their procurement strategies. US companies meet these requirements and maintain substantial US exports sustaining American jobs through establishing joint ventures, licensing arrangements, or MRO facilities with allies and partner nations rather than through establishing core manufacturing overseas. Striking this balance means that full onshoring remains rarely feasible for US companies looking to be successful in global markets. Foreign sales are expanding, driven by rising defense budgets in allied nations (for example, Japan and Germany), dissatisfaction with the Defense Logistics Agency’s foreign military sales program, which is often criticized as slow and costly, and the broader political climate of increased defense spending. For example, Australia’s efforts to build a local defense industrial base include supporting Australian suppliers, establishing shipyards, and preparing production readiness. During the transition, the United States and United Kingdom are sourcing from these facilities, while joint ventures help localize capabilities and use foreign demand to build domestic capacity.

Many suppliers already operate dual-location models to balance resilience, market access, and compliance.

Risk and resilience

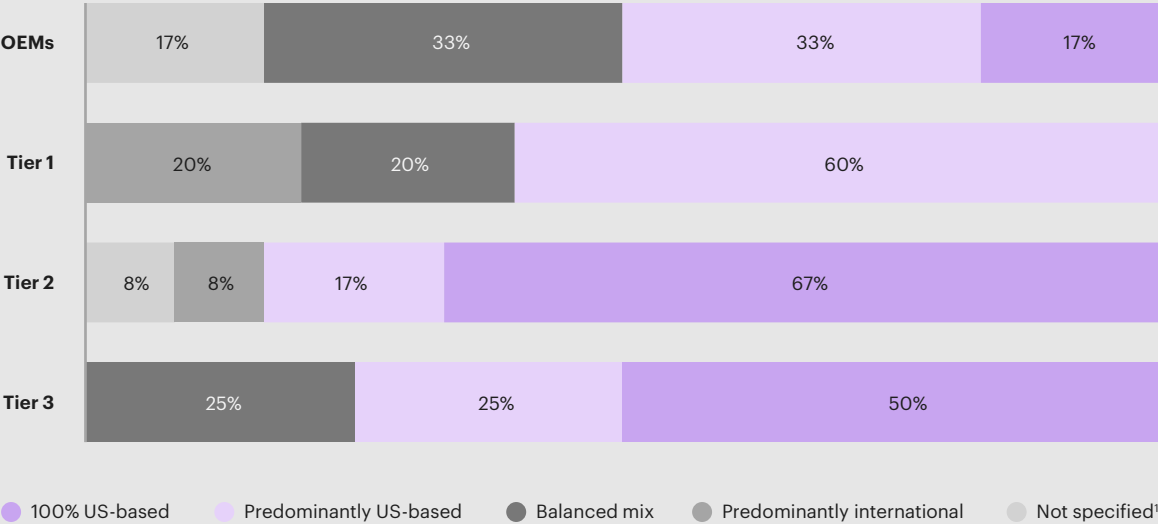
More than half of companies across all tiers have predominantly US-based footprints, with tier 2 and tier 3 most localized (see figure 6). Still, 33 percent of OEMs, 20 percent of tier 1s, and 25 percent of tier 3s maintain evenly distributed global footprints, reflecting hybrid shoring strategies. Many suppliers already operate dual-location models to balance resilience, market access, and compliance. One stakeholder indicated that a dual-location strategy is not just a response to tariffs or geopolitical shifts, but a proactive approach to better serve regional customers while maintaining access to US defense and commercial markets.

“Tariffs triggered a good exercise in supply chain thinking: diversification and localization where it makes sense.”

– procurement VP, OEM

Figure 6
Tier 2 and 3 suppliers show the highest levels of US-based manufacturing

Manufacturing footprint
(% of companies surveyed, n = 27)



¹ Some companies did not provide sufficient data to categorize their footprint.
Source: Kearney–Aerospace Industries Association Aerospace and Defense Supply Chain Localization Study

Dual sourcing is also being adopted as a safeguard against supply chain disruptions for OEMs. By qualifying multiple suppliers for the same part or assembly, companies enhance their flexibility and resilience, especially in the face of geopolitical risks, quality issues, and lead time constraints. Rather than fully reshoring their supply base, OEMs are splitting production across domestic and international sources, maintaining parallel supply chains to ensure continuity and compliance. Though it may add complexity and raise costs, dual sourcing enables faster recovery, better risk management, and stronger operational agility in critical sectors.

With increasing geopolitical risks, IP protection is becoming a cornerstone of supply chain strategy. More companies are retaining high-risk components and proprietary technologies in-house to maintain strategic control, such as proprietary algorithms. One stakeholder noted that foreign ownership can pose hidden risks, referencing a case where a Canadian supplier was secretly acquired by China, underscoring the need for stronger ownership disclosure and due diligence. Product design strategies are also evolving to balance strategic control, regulatory constraints, and operational realities. Companies with full design authority can manage the entire life cycle from concept to testing, enabling rapid iteration and customization. Others operate as build-to-print manufacturers, producing to customer specifications. Localization is also shaping design decisions. Modular and dual-use strategies are being adopted to enhance supply chain resilience and infrastructure reuse. Additionally, shared supplier models, part-family strategies, and automation-friendly designs are becoming more prevalent, helping companies manage volatility and improve scalability in commercial and defense markets.

Capabilities and infrastructures

A&D companies don't always find domestic labor to be a guaranteed advantage. Although some regions offer lower costs, they often lack the skilled trades or technical expertise needed for high-precision manufacturing. More than 75 percent of A&D jobs are concentrated in just 15 states, highlighting a key challenge: not all regions have a sufficient pool of qualified job-seekers. Washington and Texas stand out for their strong talent bases, but many other states face ongoing shortages despite nearly all states competing for these high-paying positions within the sector.

For companies with multiple US manufacturing locations, a regionally tailored workforce strategy is often essential. Market conditions and population dynamics vary widely across the country. For example, Southern California is known for its deep expertise in composites and avionics, while Virginia benefits from its proximity to military operations. Other factors, such as union versus non-union labor dynamics and urban-rural cost differences, also play a role in regional competitiveness. Interestingly, rural areas in traditionally high-cost states such as New York or Pennsylvania may offer stronger labor and infrastructure advantages than non-union regions in lower-cost states.

To address these challenges, companies are partnering with educational institutions, such as trade schools, community colleges, and state-level programs, to build skilled labor pipelines and support long-term workforce development as part of their localization strategies.

Localization brings engineering and manufacturing closer together, enabling faster iteration, design agility, and full life-cycle management. Additive manufacturing is accelerating prototyping, while some companies are restructuring, such as by creating technology and operations functions, to align design, sourcing, and supply chain decisions earlier.

However, even highly localized factories still depend on foreign-made machine tools and metrology systems, particularly from Germany and Japan, due to the lack of high-performance US alternatives. New orders of metalworking machinery in the A&D sector grew [6 percent](#) in the first half of 2025, yet full localization remains constrained. In addition, 50 percent tariffs on imported steel and aluminum derivatives have been announced under Section 232. This limits full localization and introduces exposure to export controls, tariffs, and geopolitical risks. Components such as pressure transducers from Japan, the UK, and France are embedded in legacy defense programs and are difficult to requalify domestically. Similarly, tooling and equipment for casting and machining face domestic capacity constraints, making global sourcing unavoidable and influencing make-versus-buy and capital investment decisions.

Regulatory and geopolitical factors

Geopolitical conflicts have become an equally powerful motivator for localization. Companies are concerned about supply chain vulnerabilities stemming from global instability, including tensions with China and Russia and reliance on foreign sources. The risk of disruption due to war, sanctions, or political shifts has led to a strategic bias toward domestic suppliers, where visibility, control, and compliance are easier to manage. Supply chains are now more sensitive to geopolitical shocks, prompting shifts to domestic options even when costs are higher. In some cases, geopolitics has forced expensive redesigns and supplier pivots, such as disruptions tied to Ukraine's engine programs. One stakeholder mentioned that OEMs have also had to backpedal on sourcing strategies in response to sanctions and ongoing risks around China-Taiwan. While cost remains relevant, the ability to mitigate geopolitical risk and ensure continuity of supply is now a stronger driver of reshoring and domestic investment.

Layered onto these pressures, export control compliance is one of the most persistent constraints. Companies face challenges navigating ITAR, Export Administration Regulations (EAR), and Defense Federal Acquisition Regulation Supplement (DFARS) requirements, which create bottlenecks in onboarding new domestic suppliers. Even established companies can be overwhelmed by the volume of certifications, flow-down clauses, and cybersecurity mandates. Stakeholders emphasized that overly burdensome flow-downs from government regulations (such as DFARS), compounded by layers imposed by primes, complicate compliance. One stakeholder noted that suppliers often abandon the qualification process midway, leaving primes reliant on a shrinking pool of single-source vendors. These challenges are heightened when foreign ownership or offshore manufacturing is involved, requiring extensive documentation, segregation of controlled technical data, and the selection of only suppliers that can meet strict security and compliance obligations.

Finally, certification and regulatory barriers intensify these constraints. Smaller and non-traditional suppliers struggle with AS9100, ISO, Cybersecurity Maturity Model Certification (CMMC), and government audits, while complex flow-downs add disproportionate burdens. Concerns are particularly acute around CMMC, with fears that smaller dual-use suppliers may exit the defense sector due to the cost of compliance. Some stakeholders argue that the commercial off-the-shelf (COTS) exemption is too narrow and should be extended to all commercial parts since they can often be reverse engineered. Others warn that without balancing compliance costs with meaningful incentives, the defense sector risks losing critical suppliers to purely commercial markets. At the same time, reshoring production often requires costly redesigns and requalification, which delays localization. Together, these factors reduce competition, raise costs, and constrain overall supply chain resilience.

Balancing the trade-offs

Cost versus resilience

While resilience and control are increasingly prioritized, A&D companies continue to weigh the higher unit costs of domestic production against benefits such as reduced lead times, improved quality control, and supply chain stability. Many OEMs emphasize cost efficiency and responsiveness to customer needs, reflecting the constant tension between integration, performance, and competitiveness. This value-risk trade-off requires companies to assess whether the premium paid for localization delivers sufficient resilience and control to justify the cost.

“We’ve gone from an environment of just in time to just in case, stockpiling enough so that we can keep going.”

– supply chain director, OEM

Customer-supplier collaboration, such as inventory holding or forecast sharing, often determines whether these higher costs are acceptable. Without it, reshoring premiums may be seen as excessive. Stockpiling, for instance, mitigates disruption risk but ties up capital that could otherwise create value. Dual sourcing diversifies supply risk but requires investment in parallel relationships that may dilute economies of scale. Shifting production away from geopolitical hotspots improves resilience but can erode cost-competitiveness in the short term. Each strategy reflects the broader challenge of calibrating long-term value creation against near-term risk mitigation in an industry still rebuilding local capabilities after decades of offshoring.

Workforce versus automation

Skilled labor can be an issue for reshoring. Even with domestic production facilities and equipment in place, shortages of machinists, welders, and engineers can delay or derail localization efforts. As a result, recruiting, training, and retaining talent is a foundational requirement for reshoring success. Many stakeholders say automation alone cannot replace the precision and oversight required in complex, build-to-print aerospace components. Human expertise is still essential, especially in high-mix, low-volume production environments.

“Automation is limited due to the precision required in manufacturing. Human oversight remains essential.”

– president and CEO, aerospace and defense tier 2 supplier

Meanwhile, some companies are pursuing automation, digitalization, and AI to mitigate labor shortages and improve production efficiency. Strategies such as lights-out machining, collaborative robotics, and flexible work centers are being deployed to reduce reliance on manual labor and control costs. Companies see automation as a competitive advantage rather than a labor substitute. Still, even automation advocates acknowledge that many processes remain hands-on due to the nature of the products.

The prevailing sentiment is that automation and AI complement human labor by filling gaps, enhancing precision, and improving consistency rather than serving as replacements. At the same time, developing sovereign capabilities in advanced manufacturing technologies is increasingly viewed as essential for long-term competitiveness. By investing in automation and digitalization that can be owned and controlled domestically, A&D firms not only address workforce challenges but also strengthen their technology sovereignty, reducing reliance on external ecosystems and securing critical knowledge within their own supply bases.

Modular flexibility versus standardization

A&D companies face a strategic trade-off between modular flexibility and standardization. Modular, or design-to-print, architectures offer adaptability across platforms, enabling faster integration, easier upgrades, and localized sourcing that enhances resilience to geopolitical shifts. However, this flexibility often introduces engineering complexity, longer qualification cycles, and higher unit costs due to limited economies of scale. Stakeholders express that this approach raises questions about whether the added resilience delivers sufficient value to offset the risks.

“We need to drive more commercialized off-the-shelf type items where we can.”

– global supply chain VP, OEM

In contrast, standardization creates efficiency, reduces costs, and streamlines supplier relationships but can constrain responsiveness to customer-specific needs and limit agility in managing supply chain disruptions. From a technology sovereignty perspective, modularity can support local sourcing and greater control over critical components, while standardization may risk deeper dependency on a narrow set of suppliers or foreign ecosystems. Given the early stage of modularization, a leading OEM company took a hybrid approach, standardizing core components while allowing modularity in peripheral systems to balance value creation, risk management, and sovereignty over strategic technologies.

Opportunities and constraints of onshoring and reshoring

Figure 7 highlights the key opportunities and constraints that companies face when onshoring and reshoring. These factors do not act in isolation; they interact and shape companies’ cost structures, risk profiles, and strategic choices. The dynamics discussed in the following sections underpin the industry’s shift toward three primary strategic models that are guiding decisions.

Workforce and capability constraints

The most frequently cited barrier is the limited availability of skilled labor. Companies consistently report difficulty in attracting and retaining qualified machinists, engineers, and technicians. In parallel, many domestic suppliers lack the capacity and the technical expertise, proven qualifications, and certifications required under the Federal Acquisition Regulation (FAR) and the DFARS to reliably deliver A&D-grade components. Without stronger investments in workforce development and supplier enablement, these gaps will restrict the ability to scale reshoring efforts.

Cost and financial burdens

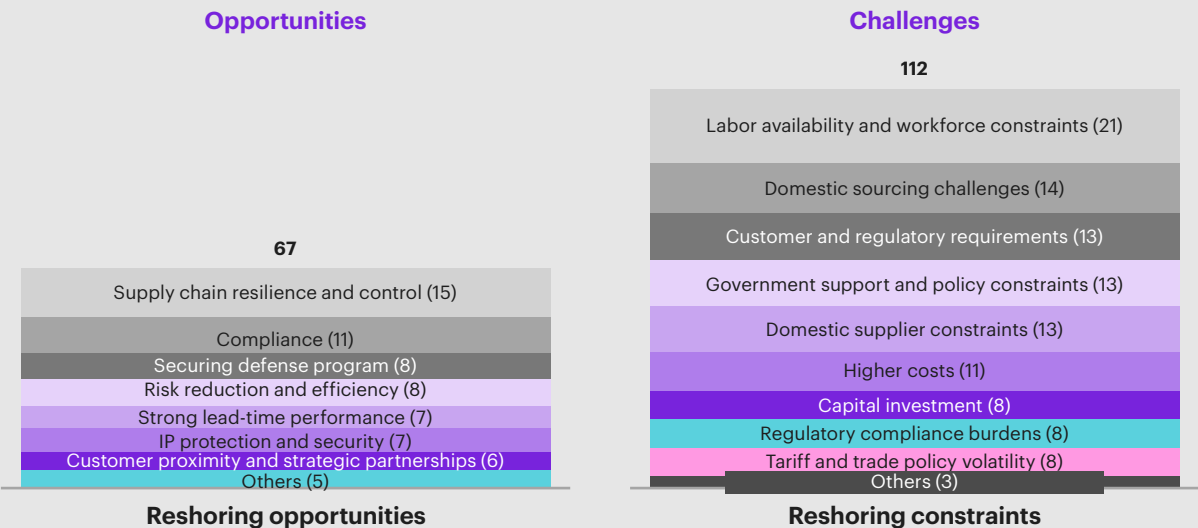
Reshoring is perceived as cost-intensive across both operations and investments. Higher wages, compliance-driven overhead, and inflation contribute to higher operating expenses compared with offshore competitors. In addition, substantial capital outlays are required for advanced facilities, tooling, and automation. These upfront financial commitments delay the benefits and cause companies to hesitate when considering large transitions to US production.

Trade and policy risks

Uncertainty in trade and policy environments adds another layer of complexity. Companies are exposed to tariff volatility and shifting trade rules, which impacts the cost of critical inputs. At the same time, regulatory compliance, while essential for A&D programs, adds administrative burdens and elevates costs compared with competitors in more stable jurisdictions. The lack of consistent, long-term policy support undermines confidence in the sustainability of reshoring strategies.

Figure 7
Reshoring ambitions confront more obstacles than advantages

Opportunities and constraints of onshoring and reshoring
(number of responses)



Note: For opportunities, “others” includes flexibility for production ramp-up, quick problem resolution, and brand reputation “Made in America.” For constraints, “others” includes limited global collaboration and production scaling.

Source: Kearney–Aerospace Industries Association Aerospace and Defense Supply Chain Localization Study

Operational and flexibility challenges

Operational limitations constrain reshoring progress. Companies highlight reduced agility in meeting fluctuating customer requirements, slower scale-up timelines, and supply chain disruptions during the transition from global to domestic networks. Ongoing reliance on imported raw materials prevents full localization. In addition, infrastructure concerns, particularly around the reliability of the US power grid, heighten risks for advanced manufacturing, where uninterrupted energy is essential. Together, these challenges erode the flexibility required to compete.

Domestic sourcing challenges

Supplier-related barriers complicate reshoring and onshoring. Decisions are often driven less by geography than by capability and capacity fit. Onboarding new suppliers is particularly challenging due to extensive FAR/DFARS standards, multiple certification requirements, and rigorous cybersecurity and audit checks. The qualification process typically takes six to 12 months, and even longer for start-ups. These hurdles are compounded by customer-specific demands, limited US supplier capacity, and extended lead times.

Strategic models and degrees of localization

Based on the key components of localization strategies as defined by our stakeholder sample, we identified three models that are shaping industry decisions. These are distinct options for structuring manufacturing footprints and their supply base in response to evolving geopolitical, operational, and market dynamics. Next, we explore the supporting enablers, not as standalone solutions, but as integral components that shape the feasibility and effectiveness of each strategy.

Multi-country shoring model

Commonly adopted by OEMs, this is a transitional approach to localization in the post-globalization era (see figure 8). As companies shift manufacturing away from high-political-risk countries, such as China, they are building flexible, country-level footprints and trusted-allied nodes to stay close to customers or meet offset obligations. This creates opportunities for reduced risk and creates cost advantages but also introduces challenges such as fragmented supply networks and inconsistent supplier quality, often mitigated through strict internal standards.

Figure 8
Multi-country shoring model is a transitional step to localization in the post-globalization era

 Business constraints	- Flexible, low-cost options but fragmented supply networks - Inconsistent quality and lead times
 Materials and sourcing	- High dependency on foreign manufacturing, tooling, and raw materials - Limited visibility across multi-tier supply chains
 Customer marketplace	Flexible footprints tailored to customer requirements
 Risk and resilience	- Ongoing IP exposure - Supplier diversification
 Capabilities and infrastructure	- Diversified labor challenges by country - Focused technology investment
 Regulatory and geopolitical factors	- High tariff costs - Regulatory constraints (e.g., ITAR, FAR)

Source: Kearney analysis

To address these risks and strengthen supply chains, companies are adopting several strategic actions, including diversifying suppliers, avoiding overconcentration in any single region, and consolidating regionally. Embedding trusted-allied nodes within the supply base reinforces dual sourcing and proximity advantages while reducing geopolitical exposure. Investments in digital security, supplier vetting, and transparency tools are improving oversight and reducing vulnerabilities. At the same time, companies are aligning sourcing strategies with regulatory compliance, evaluating tariff impacts, and assessing the ROI of reshoring or friendshoring. At the same time, companies are aligning sourcing strategies with regulatory compliance, evaluating tariff impacts, and assessing the ROI of reshoring or friendshoring, turning resilience into measurable value.

Leveraging allied nations, monitoring trade policies, and enhancing quality assurance through better inspection processes, certifications, and supplier training are also key components. Despite these efforts, strategic risks such as IP exposure, regulatory constraints (for example, ITAR and FAR), and continued reliance on foreign materials persist. Addressing these risks increasingly requires a focus on technology sovereignty: investing in secure IP practices, advanced automation, and domestic tooling to strengthen independence from untrusted sources. Labor variability across regions also drives targeted technology investments, while high tariffs and geopolitical pressures complicate cross-border operations.

Regional hybrid shoring model

Widely adopted by OEMs and top-tier suppliers, this model marks a strategic shift from pre-pandemic dual-location setups (see figure 9 on page 19). Initially designed for customer proximity, it has proven effective in addressing geopolitical challenges by consolidating operations within key regions. This approach directly supports risk reduction by lowering tariff exposure, enabling resilient dual sourcing, and creating built-in redundancy to protect supply continuity by providing access to skilled labor and infrastructure. It also supports local sales, aligns with friendshoring strategies (such as India and Morocco), and balances capex versus opex trade-offs and lead times. Despite ongoing challenges such as cross-border trade complexities, IP risks, and regulatory constraints, the model enhances operational efficiency and geopolitical agility.

To optimize this model, companies are streamlining documentation and compliance, leveraging existing regional facilities to reduce capital expenditures, and prioritizing automation over new builds. Maintaining dual locations helps mitigate geopolitical and tariff risks; aligning sourcing with customer-driven regional preferences improves responsiveness and delivery assurance. In parallel, investing in automation and digitalization within these regional nodes strengthens domestic and allied technology bases, safeguards IP, and reduces dependence on untrusted suppliers. Additionally, companies are matching their regional footprints to local talent pools to support long-term sustainability and workforce readiness.

Domestic reshoring model

This model is being adopted by tier 2 and lower-tier suppliers along with companies serving the US Department of War, driven by national security priorities. This approach offers strong supply chain resilience, proximity to US customers, and faster resolution of quality issues (see figure 10 on page 19). However, it also presents challenges, including high capital expenditures for infrastructure, elevated domestic labor costs, and the need to rebuild extended supplier pipelines. Adoption is constrained by workforce competition, regulatory dependencies, and the complexity of reshoring transitions.

To overcome these barriers and support long-term competitiveness, companies are taking proactive steps such as assessing redesign scope and compliance needs, qualifying new suppliers, securing funding, and forecasting ROI. They are improving productivity through automation and enhancing supply chain visibility, which both offsets labor shortages and establishes advanced domestic manufacturing capabilities critical to maintaining independence over core technologies. Strategic efforts also include benchmarking competitors, collaborating with public and private partners, applying for incentives, and staying aligned with evolving regulations. Additionally, companies are investing in workforce development by enhancing recruitment, upskilling, and retraining efforts, while adopting technologies that transform operations and reduce exposure to external dependencies.

Figure 9
Regional hybrid shoring model consolidates operations within key regions

	Business constraints	— Capex vs. opex trade-offs by facility location — Moderate lead times
	Materials and sourcing	— Dual sourcing across regions — Active friendshoring strategies
	Customer marketplace	— Longer distance from end customers
	Risk and resilience	— Dual-location adoption — Continued IP exposure
	Capabilities and infrastructure	— Regions selected for skilled labor and infrastructure to support local sales
	Regulatory and geopolitical factors	— Complex cross-border trade

Source: Kearney analysis

Figure 10
Domestic reshoring model bolsters supply chain resilience and offers proximity to US customers

	Business constraints	— High capex for machinery and infrastructure — Higher domestic labor costs — Predictable lead time — Faster issue resolution with domestic suppliers
	Materials and sourcing	— Need for stronger domestic supplier pipeline — Collaboration to improve visibility — Gradual transition, expansion of domestic capacity toward reshoring and friendshoring
	Customer marketplace	— Proximity to US customers
	Risk and resilience	— Redesign requirement for new supplier qualification
	Capabilities and infrastructure	— Increasing workforce competition — Automation and digitization to boost production
	Regulatory and geopolitical factors	— Dependency on national policies and incentives

Source: Kearney analysis

Strategic enablers of localized growth

Localization requires activating the right internal levers, paired with external enablers. Together, these forces create a solid foundation for resilient, localized growth.

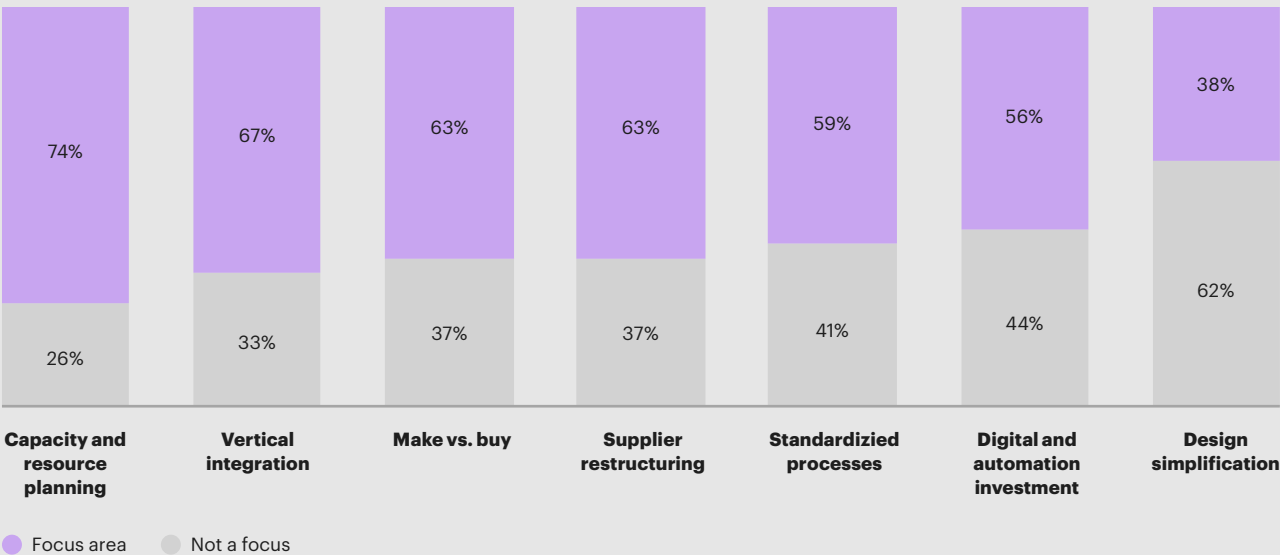
Internal levers

Companies are considering a variety of internal ways to maximize the benefits of localization, with priorities shaped by their position in the value chain and resource constraints. The greatest localization value is found in strengthening fundamentals such as capacity planning, vertical integration, and make-versus-buy decisions, while automation, supplier restructuring, and design simplification remain secondary or lower priorities (see figure 11).

OEMs and tier 1 suppliers are prioritizing make-versus-buy decisions along with digital and automation investments, signaling a focus on reshaping sourcing models and upgrading technology. By contract, tier 2 suppliers show the broadest engagement, particularly in vertical integration along with capacity and resource planning, suggesting they face the most pressure to adapt operations. Tier 3 suppliers indicate more limited activity, reflecting either smaller-scale or more constrained resources. Overall, the data suggests that larger players are making technology and sourcing strategy shifts, while mid-tier suppliers are investing in operational restructuring.

Figure 11
A&D companies prioritize capacity planning to capture localization benefits

Focus areas for maximizing localization
(% of companies surveyed, n = 27)



Source: Kearney–Aerospace Industries Association Aerospace and Defense Supply Chain Localization Study

Capacity and resource planning optimization

To support localization and mitigate supply chain risks, companies are using capital expenditures to expand internal capacity. These investments are often funded through annual operating plans, government support (particularly in defense), and customer contracts that include cost pass-through mechanisms. Before committing to local production, companies assess regional capabilities such as machining and coating to ensure resource availability to ensure that domestic infrastructure can meet production demands.

Vertical integration

Vertical integration is typically adopted in response to supply chain disruptions, labor shortages, or quality assurance challenges rather than as a cost-saving initiative. Some high-tier companies have retained the final steps, such as polishing and inspection, to maintain quality control. This strategy is selectively applied, particularly when facing supplier cost escalation, delivery issues, or defense-related requirements. While full vertical integration is rare due to cost and scale limitations, it can help consolidate essential processes within national borders and enhance traceability and compliance.

Make versus buy

More companies are using make-versus-buy analysis to mitigate supply chain risks, particularly when supplier performance deteriorates or geopolitical tensions disrupt sourcing. OEMs and tier 1 suppliers are more inclined to bring production in-house when external suppliers fail to meet expectations around cost, quality, or delivery. In some cases, steep price hikes from suppliers have prompted OEMs to insource specific components. However, cost savings alone are not enough to justify the shift. In-house production is typically considered only when cost, control, or strategic value justifies the move, even within domestic operations. One stakeholder emphasized the need for earlier supply chain engagement in business development and make-versus-buy decisions to ensure more effective outcomes. Ultimately, these decisions, often driven by program-specific needs, also support localization by enabling companies to regain control over critical operations, reduce foreign dependency, and improve responsiveness to domestic demand.

Restructuring supplier contracts

OEMs and high-tier suppliers are restructuring contracts to enhance stability and reduce risk. There is a shift toward long-term agreements (LTAs), which help secure labor, encourage supplier investment, and ensure production continuity. LTAs also provide stability in pricing and delivery, with fixed pricing or structured escalations that mitigate inflationary pressures. For example, some LTAs enable companies to secure better data from the Defense Logistics Agency while locking in cost predictability. The value of such contracts became especially clear during the pandemic, when price escalations and throughput issues disrupted supply chains, but LTAs helped soften the blow. At the same time, some OEMs are consolidating their supplier base, favoring fewer but more capable partners and reducing reliance on single-source dependencies. Collectively, these contract strategies directly support localization by strengthening domestic supplier relationships and encouraging sustained investment in regional capabilities.

Some OEMs are consolidating their supplier base, favoring fewer but more capable partners.

Standardized processes

A lack of standardization in supplier evaluation and planning is a persistent challenge. Supplier selection is often program-driven rather than strategically guided, and few companies use formal tools such as total cost of ownership or ROI models. Instead, decisions rely on customer requirements and internal experience. During an interview, one industry leader shared the company’s approach for shoring and supplier decisions (see figure 12). Despite standards such as the National Aerospace and Defense Contractors Accreditation Program, operations are complicated by fragmented forecasting, inconsistent compliance practices, and redundant audits. Standardized processes are essential for localization, as they streamline supplier onboarding, improve coordination, and ensure consistent quality across regional networks.

Digital and automation investment

Automation is being used to integrate and streamline production, especially for repetitive tasks. Companies are investing in advanced manufacturing, including robotics and machine learning, to improve quality, throughput, and efficiency (see figure 13 on page 23). These technologies also support partial vertical integration by automating final steps in the production process, reducing exposure to external suppliers and strengthening control over critical capabilities. AI adoption, however, is still in the early stages, concentrated mainly on data mining and shop-floor tracking, reflecting a hesitant, risk-averse culture in the industry. By contrast, disruptors such as Anduril, VAST, and SpaceX lean heavily into AI and advanced technologies, and are willing to take risks on smaller contracts. Even established primes acknowledge they are behind in this area, though they are cautiously progressing. Many now view these disruptors as credible threats for niche market share. At the same time, innovation hubs and regional tech ecosystems are building the digital backbone needed to scale localized manufacturing. By embedding advanced automation and AI into domestic and allied facilities, firms not only unlock efficiency and value but also ensure greater sovereignty over the technologies that underpin future production and supply chain resilience.

Figure 12

A consistent evaluation process is essential to onshoring decisions

Client example



Source: Kearney analysis

Figure 13
Trade policy and funding programs are prompting supply chain reevaluation and localization planning

Examples of technologies and applications

Theme	Technology and automation	Purpose and application	Implementation complexity
Digital intelligence	AI for supply chain visibility	Map suppliers, trace materials, identify risks	●
	Digital thread capability	Link engineering data to supply chain mapping	●
	Machine learning for inspection	Automate visual and X-ray checks	🕒
	Automated data capture	Replace manual logging with digital inputs	🕒
	AI for drawing analysis	Extract data from engineering drawings	🕒
Factory automation	Cobots (collaborative robots)	Surface finishing and polishing	🕒
	Robotic machining systems	CNC machines with robotic loading	🕒
	Automated coating systems	Specialized components finishes	🕒
	Tool and die automation	In-house ceramic core tooling	🕒
	Overnight automated machining	Unattended machining to offset labor shortages	🕒
Advanced manufacturing	Digital twin	Integrate design, manufacturing, and risk simulations	●
	Additive manufacturing	Produce complex metal parts for A&D	🕒

🕒 Easy to adopt 🕒 Moderate difficulty 🕒 Difficult to implement ● Most difficult

Source: Kearney analysis

Modular design and component simplification

This is gaining traction in A&D to simplify engineering, enhance producibility, and support localization. For example, missile systems are adopting standardized platforms to support flexible sourcing and scalable production. Aircraft engines and electronic components also exhibit some modularity, which helps reduce complexity in constrained categories. Although this trend is not yet dominant, particularly in defense, where designs are highly specialized and IP-driven, modularization allows for repeatable, scalable manufacturing and reduces reliance on complex, foreign-sourced parts.

Modularization reduces reliance on complex, foreign-sourced parts.

External enablers

Joint ventures (private partnerships)

More companies are using collaborative integration strategies—though not always as formal joint ventures—to enhance efficiency and responsiveness across regions. These partnerships offer several advantages, including compliance with export controls, better alignment with local customer needs, and improved resilience against geopolitical disruptions. For example, a tier 1 supplier partnered with a European airline's technical division to co-develop a niche recycling technology, allowing both parties to combine expertise and access new markets. By pooling regional capabilities and aligning with local regulations, joint ventures support localization by enabling companies to operate effectively within specific markets while mitigating global supply chain risks. This model is particularly attractive when companies seek to balance intellectual property protection, cost control, and supply chain resilience without fully committing to vertical integration.

Government collaboration (public partnerships)

Public partnerships are seen as essential for advancing localization, expanding capacity, and strengthening supply chain resilience. The federal government and state governments play a key role by offering tax incentives, grants, and funding programs, such as the Defense Production Act and Title III, to support domestic production, particularly in defense and critical materials sectors. Workforce development initiatives such as SkillBridge and Accelerated Training in Defense Manufacturing (ATDM) also help address labor shortages by building a skilled talent pipeline (see figure 14 on page 25). State-level programs, such as California's Employment Training Panel, provide additional support, while federally backed facilities such as ATDM in Virginia build sustainable manufacturing capabilities.

The strongest incentives are seen in shipbuilding and space. The US Navy has invested heavily in the submarine industrial base, offering grants to help new suppliers enter defense production and supporting workforce training through programs such as the Talent Pipeline Program. This has enabled suppliers to pivot into submarine production with small but high-impact grants. Similarly, the US Space Force's StratFi program provides milestone-based funding for small businesses, supporting R&D and capital investment in areas such as thrusters and satellite prototypes. While these targeted initiatives demonstrate how public partnerships can strengthen supply chains, most other A&D segments lack comparable incentives, leaving primes and OEMs to absorb supplier qualification costs. Uneven awareness and access also limit participation, especially among smaller suppliers.

Friendshoring and allied sourcing strategies

Friendshoring can enhance supply chain resilience by prioritizing sourcing from geopolitically aligned or politically stable countries. Unlike traditional cost-driven offshoring, friendshoring emphasizes long-term stability and strategic alignment. More companies are shifting supply chains toward allied nations such as India, Poland, Japan, Taiwan, Mexico, and Australia to reduce exposure to geopolitical risks. This is especially important in defense and for materials subject to constrained offshoring, such as critical minerals. By securing upstream sources and building trusted supplier networks in allied regions, friendshoring strengthens localization by creating a more stable and politically aligned supply base. Companies are also looking for local processing and refining capacity, analyzing purchased volumes, and reinforcing key supplier relationships to meet government mandates and customer expectations for secure, resilient sourcing.

Transition strategies and policy enablers for localization

This section outlines the road map for reshoring, onshoring, and localization, which presents a phased transition strategy, sequencing initiatives from immediate actions to long-term transformation based on complexity and impact. It is important to note that while many companies are pursuing localization strategies, others continue to leverage global and hybrid supply networks, suggesting that different paths may coexist depending on industry segment and company priorities. This section also highlights the voice of industry and outlines policy implementation requests, covering areas such as targeted investment, workforce development programs, and regulatory alignment, to help scale domestic capabilities sustainably.

Figure 14
Public partnerships and government programs support A&D localization

Examples of government support programs

Area	Initiatives and programs	Details
Workforce development and training program	Accelerated Training in Defense Manufacturing (ATDM)	DOW workforce development program
	ACE Program	DOE/DOW advanced manufacturing and machining training, e.g., free CNC machining training
	Talent Pipeline Program (TPP)	Talent pipelines for Navy shipbuilding and sustainment
	SkillBridge	DOW program continuously matching transitioning service members with civilian internships/fellowships
	Manufacturing Extension Partnership (MEP)	NIST program with centers across the United States, continuous small/medium manufacturer support
	Manufacturing Engineering Education Program (MEEP)	Recurring DOW grant cycles to universities and partners
Executive contracts	Defense Advanced Research Projects Agency (DARPA)	Funding for defense-focused research, prototyping, and transformational R&D
	Air Force Research Laboratory (AFRL)	Funding for external R&D efforts, especially in high-priority defense tech
	Industrial Base Analysis and Sustainment (IBAS)	Statutory DOW program, recurring projects to strengthen defense supply chains
	Navy Contract-based Grants	Continuous Navy R&D/production grants through BAAs and contracts
	Department of Defense Manufacturing Technology (ManTech) Program	Long-standing program managing DOW manufacturing innovation institutes
	Submarine Industrial Base (SIB)	US Navy program funding workforce training, capacity expansion, and supplier entry into submarine production
Tax incentives	Big Beautiful Bill Act, 2025	Sweeping legislative package (tax, trade, spending). One-time act, though implementation phases run through 2028
Federal purchasing mandates	Buy American Act (BAA)	Enacted 1933, still governing procurement; ongoing policy effect
Direct funding bills	Inflation Reduction Act (IRA)	Passed in 2022, structured with multi-year tax
	CHIPS Act	Passed in 2022, structured as a multi-year funding mechanism (\$52.7 billion rolling out until late 2020s)
	Made in America Manufacturing Initiative (SBA)	Ongoing federal initiative through SBA, tied to continuous procurement preference and support programs
	Space Force Strategic Funding Increase (StratFi)	Milestone-based funding for small businesses (SBIR/SBIC eligible), supporting R&D and capital investment in space systems such as thrusters and satellite prototypes

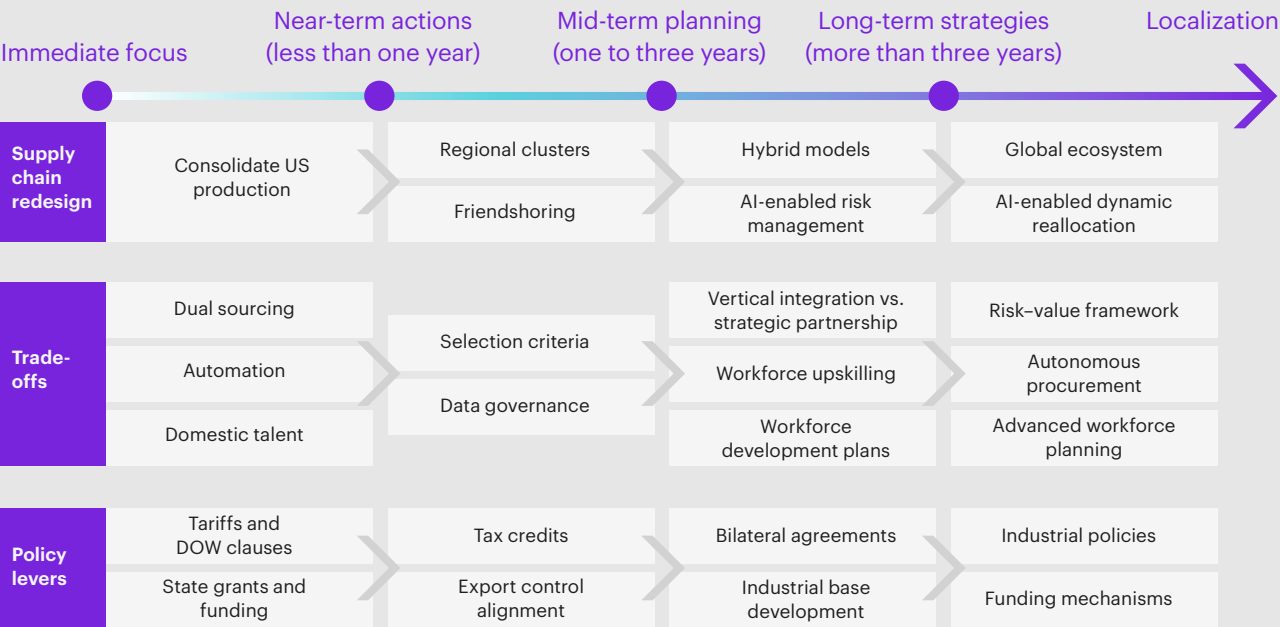
Source: Kearney analysis

Phased transition planning

The strategic localization road map provides a phased approach to reshoring and localization, sequencing initiatives across supply chain redesign, managerial trade-offs, and policy levers (see figure 15). Supply chain redesign refers to reconfiguring where and how goods are produced and sourced, including reshaping networks through domestic production, regional clusters, and AI-enabled risk management. Managerial trade-offs capture the choices leaders must make between efficiency and resilience, short-term actions and long-term investments, or integration and partnerships, while also prioritizing workforce development and digital governance. Policy levers represent the government tools and industrial mechanisms that enable and incentivize localization. Together, this road map outlines how organizations can progressively build resilience, competitiveness, and self-sufficiency while balancing immediate actions with long-term structural transformation.

This road map outlines how organizations can progressively build resilience, competitiveness, and self-sufficiency.

Figure 15
A phased road map can help guide localization strategies



Note: DOW is the Department of War.
Source: Kearney–Aerospace Industries Association Aerospace and Defense Supply Chain Localization Study

Immediate focus

The initial stage emphasizes foundational actions to strengthen resilience and set the stage for expanded localization efforts. These include consolidating US core production, implementing dual sourcing for critical components, and investing in advanced manufacturing and automation. Building a domestic talent pipeline and tapping into state-level funding mechanisms are essential. These early steps create structural readiness and safeguard operations against immediate risks.

Near-term actions (less than one year)

In the near term, attention shifts to expanding regional US clusters and formalizing friendshoring relationships. Industry-wide criteria for trusted partners are established, alongside stronger data governance and secure digital collaboration frameworks. Policy support is extended through tax credits, public-private partnerships and investment, and alignment of export-control requirements. Together, these actions enable organizations to broaden capacity and reinforce trusted supplier ecosystems.

Mid-term planning (one to three years)

Over the medium term, organizations adopt hybrid supply chain configurations and AI-enabled risk management models. Decisions around vertical integration versus strategic partnerships become central, supported by multiyear workforce development initiatives. Workforce upskilling and reskilling, enabled by targeted training, are prioritized to build sustainable capacity. Industrial base development programs and bi-lateral friendshoring agreements deepen supply chain resilience while aligning with national security and industrial objectives.

Long-term strategies (more than three years)

The long-term phase envisions a mature, globally interdependent US core ecosystem underpinned by AI-enabled dynamic reallocation of production. Organizations formalize risk-value frameworks at the board level, orient portfolios towards autonomous procurement and digital supply chains, and advance workforce planning strategies. On the policy front, long-term industrial policies and funding mechanisms expand localization into adjacent sectors, embedding resilience and competitiveness into the broader economy.

Government support

Many stakeholders view government support as an important factor in shaping A&D supply chains. While companies continue to leverage global and hybrid networks, targeted public policies and partnerships can help strengthen domestic capacity and resilience. The following sections summarize areas where government actions have been identified as potential enablers, while recognizing that outcomes will depend on a balance between industry priorities, global collaboration, and national security needs.

Workforce development and training program

Grants to states and companies to establish apprenticeship programs and on-the-job training for skilled trades will help build a sustainable pipeline of talent. The A&D industry is seeking more regional and state-level programs with expanded funding and reach, such as Minnesota's New and Expanded Registered Apprenticeship Program Grant or Pennsylvania's Manufacturing PA Training-to-Career Grant program, which help companies train skilled workers.

- Evaluate tools such as tax credits or direct DOW matching funds for primes and subcontractors that invest in reskilling programs (for example, transitioning assembly line workers into advanced manufacturing, digital engineering, AI-enabled logistics).
- Further develop public-private partnerships where defense industry employers can directly recruit from the DOW contracting workforce, supported by tailored reskilling modules on commercial contracting practices, compliance, and digital procurement systems.

Policy direction and strategic alignment

Clear government priorities are an essential part of confident industry investments. Without such clarity, execution may remain fragmented and hesitant, according to stakeholders. Stronger alignment between funding decisions and actual manufacturing needs will accelerate adoption and ensure resources flow where they matter most.

- Establish a unified DOW-led framework to categorize critical defense materials, components, and sub-assemblies, aligned with CHIPS Act definitions and National Critical Capabilities lists.
- Clarify a Department of Commerce (DOC) and Department of Energy (DOE) state memorandum of agreement to clarify responsibilities for policy oversight of shared strategic supply chains (for example, semiconductors, rare earths, and batteries).
- Require the DOW to publish criteria for awarding workforce, R&D, or manufacturing grants (for example, resilience, domestic content, tier 2 and tier 3 impact) rather than case-by-case opaque decisions.

Government–industry coordination for national security

Stronger collaboration between policymakers and industry is needed to reduce reliance on adversarial nations. Adversarial nations such as China and Russia are expanding state-backed investments in their defense industrial bases: China through subsidies and industrial modernization plans and Russia through wartime mobilization and defense production ramp-ups. Informing policymakers about the complexity and urgency of supply chains is key to ensuring resilient, security-focused outcomes.

- Mandate DOW, DOC, DOE, and DHS to adopt unified cybersecurity and supply chain risk standards for defense suppliers, balancing security needs with manageable compliance.
- Reauthorize funding for DPA Title III beyond raw materials to cover mid-tier suppliers and advanced manufacturing ecosystems.
- Explore options for maintaining strategic national stockpiles for critical defense sub-assemblies (for example, propulsion systems, power electronics), not just raw materials.

Empowering small businesses

Small businesses are essential to the industrial base but face barriers in navigating government programs. Stakeholders highlighted opportunities to simplify SBA processes, improve loan access, and strengthen transparency to support participation. Shortening payment terms from prime contractors and more inclusion in trade policy decisions would strengthen their position in defense and manufacturing ecosystems.

- Provide SBA financial support, such as 0 percent loans, to strengthen liquidity for prime contractors working with DOW.
- Enhance partnership with DOW and small businesses at the program and subcontractor tier levels.
- Establish a dedicated DOW–SBA ombudsman office with authority to resolve small business contracting issues within 30 days (for example, bid protests, payment disputes, compliance questions).

Domestic investment and advanced manufacturing

Reshoring requires streamlined incentives, targeted public–private investment, and easier access to financing to strengthen domestic capabilities. At the same time, futureproofing demands robust R&D investment in advanced technologies such as AI, satellites, and next-generation materials, alongside greater adoption of automation and advanced manufacturing. Expanding and scaling models such as DARPA and AFRL can accelerate innovation and protect IP, while anchoring US competitiveness.

- Simplify permitting, licensing, and regulatory approvals for defense-related domestic manufacturing projects.
- Explore targeted programs that expand domestic production, subassemblies, and specialty materials.
- Co-fund demonstration projects for dual-use technologies, such as AI, semiconductors, and energy storage, where industry and government see strategic alignment.
- Scale the DARPA/AFRL innovation model across additional mission areas (for example, logistics, energy, and materials).
- Designate dedicated teams and funding to continue modernization facilities that support the commercial aerospace and defense industry.

Cost mitigation and financial support

Building supply chain resilience requires targeted measures to address inflation and tariffs that create volatility in defense production. Stakeholders suggested that cost-sharing mechanisms and mitigation for tariffs or inflation for critical A&D materials could reduce volatility while supporting long-term investments.

- Investigate targeted mitigation efforts to reduce pressures on A&D supply chain to reduce cost pressures on DOW contracts.
- Work with government stakeholders to investigate tariffs mitigation measures for critical A&D materials (for example, aerospace-grade aluminum plate, specialty steels, composites).
- Commit DOW to multiyear purchase agreements for critical components and materials to send strong, stable demand signals to suppliers.
- Provide cost-sharing or tax credits to A&D small and mid-sized contractors for healthcare and workforce benefits.
- Create a stabilization fund to support critical defense suppliers during periods of inflation shocks, material shortages, or capital-intensive regulatory requirements.

Transparency and coordination across the supply chain are critical to reducing vulnerabilities.

Critical minerals strategy

Stakeholders emphasized both domestic and international approaches, noting that a mix of domestic refining, allied sourcing, and recycling technologies could be important. This requires investment in refining and processing capacity, elimination of bottlenecks through new mill development (such as hard metals), and removal of regulatory and cost barriers, including permitting reform, which AIA is already advocating for, to restarting domestic mining to restarting domestic mining. Greater transparency and coordination across the supply chain are critical to reducing vulnerabilities. At the same time, long-term contracts, a national strategic reserve, and R&D in urban mining and recycling will safeguard access while reducing import reliance.

- Expand US strategic reserves of refined critical minerals, beyond the current National Defense Stockpile of raw ores.
- Streamline permitting and regulatory approvals while expanding domestic refining and processing capacity for rare earths and aerospace-grade alloys, supported by federal financing tools (loans, grants, and DPA Title III).
- Utilize international trade agreements (for example, the United States–Mexico–Canada Agreement and the UK Economic Prosperity Deal) to ensure reliable import access when domestic supply is limited.
- Invest in advanced recycling and urban mining technologies, and enhance financial incentives such as tax credits, federal financing programs, and appropriations prioritization to spur domestic production.
- Enable government-led end-to-end mapping of critical mineral supply chains, with regular reporting, and conduct a national demand study with an action plan that defines ownership, investment priorities, and targeted critical minerals.

Conclusion

This study reveals that localization in the US A&D supply chain is no longer optional. It is a strategic imperative shaped by geopolitical realities, competitive pressures, and the need for resilience in the face of global shocks. Far from a binary decision to reshore or not, localization is a dynamic, evolving model that restructures supply networks to reduce risk, generate long-term value, and secure technology sovereignty. By embedding critical operations in the United States and selectively in trusted-foreign allied partnerships, companies are building supplier ecosystems, proximity advantages, and digital infrastructures that make resilience a structural feature of the system itself.

Industry leaders acknowledge that progress requires more than corporate action alone. Targeted government partnership in workforce development, policy alignment, small business support, advanced manufacturing, and critical mineral strategies are essential to unlock the value of strategic localization. At the same time, companies must balance resilience with efficiency, using innovation, modular architectures, and automation to stabilize costs and strengthen competitiveness.

The path forward is a coordinated one: industry action aligned with government support and reinforced through trusted-allied partnerships. The imperative to build a strong, capability-based domestic core, remains an A&D industrial base core foundation, anchored in skilled talent, advanced manufacturing, and secure supply networks. Together, these efforts create the conditions for a value-based competitive supply chain, able to withstand disruption and sustain long-term national advantage.

The path forward is a coordinated one: industry action aligned with government support and reinforced through trusted-allied partnerships.

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About Aerospace Industries Association of America, Inc.

The Aerospace Industries Association of America, Inc. (AIA) is a not-for-profit trade association representing the interests of the aerospace and defense industry in the United States. Founded in 1913, AIA represents hundreds of the nation’s major aerospace and defense manufacturers, suppliers, and product producers, ranging from commercial aircraft, engines, and avionics to manned and unmanned defense systems and space and satellite communication systems. AIA’s united membership improves the safety of air transportation to make America more secure, fuel exploration, drive innovation, and ensure a vibrant industrial base.

aia-aerospace.org

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