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A regional, near-shored, land-based supply chain would accelerate movement of goods across the Americas and secure U.S. supply chains. By Peter Guinto

### SUPPLY CHAIN MANAGEMENT

ver the last two-and-a-half years, the pandemic has rocketed the supply chain profession from near obscurity to fame – and infamy. Early in the pandemic, shortages of personal protective equipment (PPE), ventilators, and other medical products put patients and healthcare providers at risk.

Soon it became clear that there were secondary elements of supply with fragile supply chains like swabs, needle hubs, and saline products. Then, broader supply chain disruptions began roiling the U.S. economy, driving inflation higher, damaging automotive and other industries that rely on semiconductor chips, and raising the profile of supply chains as a national security concern.

In response, growing numbers of government and corporate leaders say that we must restructure our supply chains for greater security and resilience. In addition, this restructuring must include sourcing more critical supplies from allies and fewer from geopolitical rivals, especially China.

The urgency behind this drive can be seen in recent federal reports on U.S. strategic vulnerabilities arising from supply chain issues, including the U.S. House of Representatives bipartisan report on defense-critical supply chains, the Biden Administration's recommendations for building more resilient supply chains, and the Department of Defense (DoD) February 2022 action plan to secure defense-critical supply chains.

The central theme of these reports and related statements by political and business leaders is that the global sourcing and procurement strategies created to deliver goods and commodities at the least cost also have brought layers of complexity and fragility that are no longer acceptable from a security and resiliency standpoint.

NCMA members will be aware of this shift in thinking. It was a major theme in the Risk Management Track at this year's World Congress and a frequent topic in the pages of this magazine and on the NCMA website.

As Anne Laurent, Editor in Chief of *Contract Management* Magazine, wrote in a recent blog post, "Contracting professionals, whether in government or industry, can expect to be called on for far greater understanding of the supply bases of their prime contractors, deeper knowledge of national and international markets for goods and services, and more granular comprehension of the health and capability of companies bidding for their agencies' or companies' work."<sup>1</sup>

I would add to that list of expectations: a greater understanding of the risks in supply chains that are dependent on the United States' geopolitical rivals, especially China, and plans to mitigate those risks.

The most significant supply chain risks are usually in the lower tiers of supply chains where original equipment manufacturers (OEMs) often have the least insight and visibility. So even if products are manufactured in democratic nations that are strong U.S. allies, hidden dependencies on risky suppliers for components and materials will likely persist. The DoD's action plan highlights these "sub-tier supply chain vulnerabilities" and identifies increasing visibility into the lower tiers of supply chains as a top priority. For the aerospace sector, the agency drew on McKinsey data indicating that while U.S. aerospace OEMs typically relied on about 200 direct suppliers, those Tier 1 suppliers relied on more than 12,000 second-tier and third-tier suppliers. These 12,000 companies are located all over the world; even identifying their headquarters locations and manufacturing sites can be difficult.

McKinsey classifies them as "non-visible tier 2+" suppliers. Yet some of these companies provide components that are integrated into, or provide tooling necessary to manufacture, technologically sophisticated components and equipment that DoD calls "foundational" to the aerospace industry and the broader defense industrial base. This includes optical instruments, specialized casted components, and printed circuit boards.

With only a dim view into the lower tiers of their supply chains, supply chain managers and contracting professionals will find it impossible to achieve anything like the "granular comprehension" advocated by Laurent.

Achieving multitier visibility into the entire supply chain – including second-tier and third-tier suppliers, down to the part level – will become a common expectation for competitive reasons and for reasons of national security. Not only can lack of such visibility expose defense-critical supply chains to disruptions from what DoD calls "fragile suppliers," it can allow hidden dangers from foreign ownership, control, or influence (FOCI) to persist in supply chains.

Practitioners must achieve the first step, visibility, with verified and validated mapping. The use of artificial intelligence and public data alone create blind spots and waste time attempting to mitigate risks that are not in your supply chain. They also add an extra step of verification when a true emergency arises. Purchasers must work closely with their vendors throughout the entire value chain to assure that mapping is accurate.

The COVID-19 pandemic and rising geopolitical tensions with China have led to increased concerns about FOCI, both within the DoD and Congress. These concerns dovetail with long-term issues concerning IP theft, industrial espionage, and the most frightening concern, the potential to be completely locked out of marketplaces for critical goods if China invades Taiwan.

## **Policies in Play**

Federal policymakers also are increasingly alarmed that the United States is falling behind in manufacturing sectors where defense applications are not primary or even obvious. A vivid example: drone technology. As Ukraine deploys drones – including many consumer models – to attack and destroy Russian armed forces, China's dominance of drone manufacturing is growing as a security concern. Or more accurately, the alarms raised years ago about this strategic vulnerability by members of Congress in both parties are getting a lot more attention.

DoD and congressional supply chain experts in both parties are unified in supporting re-shoring of foreign production – i.e., bringing some defense-critical manufacturing back to the United States – and what they're calling "ally-shoring" – shifting production of supplies critical to the DIB to reliable allied nations. Undoubtedly, these policy messages already are being absorbed and embraced by many supply chain managers in contracting organizations. But contracting professionals not only should be tuning into this shift in thinking by federal agencies; they also should be working proactively to develop and qualify new suppliers in friendly countries.

## **Pan-American Supply Chain**

While the DoD doesn't specifically mention America's hemispheric neighbors, many supply chain experts see enormous potential for building and diversifying supply networks in Canada, Mexico, Central and South America, and the Caribbean.

In addition to the security benefits of trading with allied nations, significant financial and strategic benefits are available to U.S. companies, including those supplying the federal government, from developing Pan-American supply networks. Diversifying supply chains can increase resilience and open access to the comparative advantages of nearby partners.

In supply chains, speed translates into cash, and flexibility improves resilience. A regional, near-shored, land-based supply chain would accelerate movement of goods across the Americas. Less time spent in transit would mean less cash tied up in inventory, reduced working capital requirements, and healthier balance sheets.

Mexico and Canada are already the second and third largest exporters to the United States (after China). The United States and Canada already are working together on a Joint Action Plan for Critical Minerals.

It will enhance regional supplies of the minerals needed for advanced batteries that will be essential for a low-carbon energy future. Border maquiladoras in Mexico already supply parts on a just-in-time basis for U.S. companies in all industries, especially automotive. The recently renegotiated United States-Mexico-Canada Agreement (USMCA) provides new certainty for cross-border trade and investment among the three countries.

One major development in transport infrastructure – the merger of Canadian Pacific and Kansas City Southern to create the first freight rail system linking all three countries – can be at least partly credited to the trade and investment security achieved by USMCA. Ten other countries in Central and South America and the Caribbean also are covered by free trade agreements with the United States.

Labor costs in Mexico and Central America rival those of China. Additionally, many countries in Central and South America have the population and demographics to support a large-scale manufacturing and logistics footprint (the average age across Central America is 28). Growth in manufacturing would create jobs, build wealth, reduce the pressure to migrate, and promote political stability in countries such as Guatemala, El Salvador, and Honduras.

In Asia, supply chain opportunities lifted hundreds of millions out of poverty. Why not try to replicate that model in troubled countries closer to home?

Initiatives by the U.S. apparel and footwear industry, with support from the Biden Administration, already are beginning to have an impact in developing Central American supply chains. U.S. manufacturer Parkdale Mills announced last year that it would build a multi-million-dollar yarn-spinning factory in Honduras. This investment will enable Parkdale's customers to shift one million pounds of yarn sourcing per week from Asian suppliers to Honduras while also creating new jobs.

Of course, there is a vast difference between apparel industries and the advanced manufacturing needed to produce the "foundational" technologies that the DoD is concerned about, such as optical instruments.

A strategic reset for our southern neighbors to become advanced manufacturing suppliers to OEMs in the U.S. defense industrial base will take time and come at significant expense. It will require a mix of private investment and public funding and incentives – coordinated initiatives along the lines of what the apparel industry is accomplishing with federal assistance, yet at a much larger scale.

A top priority for such public-private investment should be upgrading railway and highway infrastructure through Mexico and into Central and South America. Of particular importance will be bridging the 60-mile Darien Gap, the remote and dangerous wilderness that spans northern Colombia and southern Panama and constitutes the largest missing piece in the 19,000-mile network of roads known as the Pan American Highway.

### **Roadmap to Regionalization**

Funding and policy support to develop regional supply networks should be directed to critical industries first, especially the four sectors prioritized by the Biden Administration in its 2021 supply chain report – high-capacity batteries, semiconductors, critical minerals and materials, and pharmaceutical ingredients. To those, I would add telecommunications, energy, and food, and selected additional defense-critical supplies.

In some market segments and industries, it will not be cost-effective to invest in a significant re-engineering of supply chains to be more regional and less dependent on Asia. For many products, consumers will continue to choose less costly options over higher priced domestically or regionally produced items.

Also, since China is the world's largest economy with a vast and growing consumer market, large global OEMs will want to maintain and expand their China-centric supply chains to serve this market as well as the rest of Asia.

### A Sense of Urgency

Yet we have great opportunities to improve logistics, lower supply chain costs, build up the economies of our southern neighbors, and make defense-critical supply chains more secure. We should approach supply chain regionalization with a sense of urgency as a key step in addressing the risks and vulnerabilities affecting our supply chains.

The shift to more regional supply chains will not be easy or happen quickly. It took China more than 25 years to become the world's dominant manufacturer. Building this kind of capacity in other countries and regions also will take decades – which is why we need to start now.

Supply chains power the world: They keep goods moving, keep people in their jobs, and allow our defense leadership and military branches to stay ahead of rapidly evolving global threats.

As Mike Gallagher (R-Wisc.), Co-Chairman of the House Armed Services Committee's Defense Supply Chains Task Force, said in a Wilson Center webinar last year, "This will be the most important discussion not only in this Congress but over the next decade. ... It's a monumental task that's going to take all our best and brightest thinking through some very complicated issues."<sup>2</sup>CM

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### **ENDNOTES**

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