July 2024

SUPPLY*CHAIN CONNECT

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June Supply Chain News Roundup

Key news and trends currently impacting global supply chains.

upply chain-related news and events continue to make headlines as organizations work through some of the newer challenges that are emerging in 2024 while also addressing some of the lingering issues that have taken hold over the last few years. Attacks on ships in the Red Sea have been impacting ocean carriers and are now causing some congestion at key ports in countries like Singapore.

According to *Reuters*, congestion at Singapore's container port is "at its worst since the COVID-19 pandemic," and illustrates the impact of re-routing of vessels to avoid Red Sea attacks. Similar bottlenecks are also appearing in other Asian and European ports.

"Retailers, manufacturers and other industries that rely on massive box ships are again battling surging rates, port backups and shortages of empty containers, even as many consumer-oriented firms look to build inventories heading into the peak year-end shopping season," Reuters reports.

The publication says global port congestion has reached an 18-month high, with 60% of ships waiting at anchor located in Asia. Ships with a total capacity of over 2.4 million twenty-foot equivalent container units (TEUs) were waiting at anchorages as of mid-June.

"...ship timetables are being disrupted with missed sailing schedules and fewer port calls, as vessels take longer routes around Africa to avoid the Red Sea," it continues, "where Yemen's Houthi group has been attacking shipping since November."

Shipping Prices on the Rise

With peak shipping season right around the corner, dockworker, longshore worker and rail worker strikes could all impact supply chains during the second half of 2024 and/or even into 2025. *The New York Times* says dockworkers have threatened to strike on the East and Gulf Coasts of the United States, while longshore workers at German ports have halted shifts in pursuit of better pay.

"Rail workers in Canada are poised to walk off the job, imperiling cargo moving across North America and threatening backups at major ports like Vancouver, British Columbia," it adds, noting that the intensifying upheaval in shipping is prompting carriers to lift rates while raising the possibility of more waterborne gridlock. Since October, the cost of moving a 40-foot shipping container from China to Europe has increased to about \$7,000, from an average of roughly \$1,200.

"That is well below the \$15,000 peak reached in late 2021, when supply chain disruptions were at their worst," NYT explains, "but it is about five times the prices that prevailed for the years leading up to the pandemic."

Bad Weather Impacts Supply Chains

A spate of weather events affected people, businesses and supply chains in June. *The Loadstar* says flooding in Northern Europe led to extreme flooding across the region, with five confirmed casualties, and forced the level of the River Danube to double from its usual level of around three meters to more than six meters (roughly 10 feet to more than 20 feet).

This and other extreme weather have impacted European agriculture, hitting food supply chains. "The frequency of extreme weather events in Europe, including the UK, has seen a significant rise, with occurrences increasing by nearly 50% over the last two years," *Fresh Plaza* points out.

"This escalation has profound implications for agriculture across the continent," it continues. "The UK's farming sector, already grappling with the challenges posed by these climatic changes, faces an uncertain future."

Delivery Drones are Coming

The use of drones for delivery and other logistics tasks has been largely hit-or-miss over the last decade, with some promising technologies proving to be nothing more than just hype. However, this time it looks like the 300-lb gorilla of the e-commerce world may help "normalize" the use of drones in the supply chain.

According to Amazon, the company's Prime Air delivery service just got the seal of approval from the FAA to operate drones beyond visual line of sight. This will allow Amazon to use drones across longer distances. Amazon pilots can now operate drones remotely without seeing it with their own eyes. The FAA approval applies to the company's College Station, Texas location, where it initially launched drone deliveries about two years ago.

Later this year, drone deliveries will begin integrating into Amazon's delivery network, meaning drones will deploy from facilities next to same-day delivery sites. Amazon is planning to immediately scale its operations in that city in an effort to reach customers in more densely populated areas.

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From Source to Savings: How S2P Streamlines Procurement

A new report highlights procurement professionals' S2P digitization strategies, investment levels and what's keeping them from realizing greater returns from source-to-pay technology.

ocused on optimizing procurement processes, minimizing costs and helping organizations get the goods and services they need, source-to-pay (S2P) applications are integrated sets of solutions used for sourcing, contracting, requesting, procuring, receiving and paying for those goods and services across an enterprise.

As organizations work to integrate and connect their software systems, S2P is one solution that can help them achieve those goals. According to Gartner, S2P solutions typically are sold as cloud-based software as a service and allow organizations to manage all of their sourcing and procurement activities within a single integrated solution.

For example, a user can utilize an S2P platform to view a purchase order and see the contract that the purchase is related to, the e-sourcing event that led to the contract and downstream documents such as receipts, invoices and payments.

"These solutions are modular in nature allowing customers to activate the functionality that is relevant for their needs," Gartner adds. "The integrated nature of these solutions allows for data to easily flow across the source-to-pay process providing needed visibility to upstream and downstream documents."

Budgets Remain Steady

In their new *State of Source-to-Pay Digitization 2024: Navigating Supply Challenges, Embracing Innovation* report, Ivalua and Ardent Partners explore the current Source-to-Pay (S2P) technology market landscape establishing a valuable benchmark for the industry. While the results of the survey show wide adoption of S2P, most organizations have only digitized a subset of the full S2P process.

For example, adoption is higher for core P2P technologies such as electronic payments (79%) and e-procurement (51%), showing a focus on transactional processes. At the other end of the spectrum, big data management solutions (17%) and optimization-based e-sourcing (15%) have low current usage but greater planned adoption.

"Going forward, 30% of respondents expect an increase in S2P operations' technology budget for 2024 compared to 2023, while 13% anticipate a decrease," Ivalua said in a press release. The companies refer to the most successful users as "S2P Innovators," and say that these organizations demonstrate the value that technology can play in helping scale a procurement operation and maximize its performance.

The report's findings also reveal various benefits for procurement organizations that are using S2P, including efficiency (57%) and improved productivity (49%). Some of the issues that are holding companies back from realizing these and other benefits include poor data quality and/or access within the technology. Organizations are also grappling with lack of integration both between S2P technologies and third-party systems (34%) and across different S2P processes (33%).

"The disconnect between the need for high-quality data and the current reality of poor data management and process integration creates a significant hurdle for organizations aiming to extract the full value from their S2P technology," Ivalua's Vishal Patel said in the press release. "Without clean, standardized, and readily accessible data and the elimination of silos across S2P, automation is limited, as is the effectiveness of AI and analytics."

4 Steps to a Data-Driven S2P Foundation

In its report, Ivalua says that the roadmap to procurement's future must emphasize data as a cornerstone. The company offers up these recommendations to companies that want to set up a data-driven S2P foundation:

- 1.Master your data. Prioritize data hygiene; implement data cleansing initiatives to eliminate inconsistencies and errors in existing data sets. Establish clear data governance policies that ensure ongoing data quality and accessibility.
- 2. Make data management capabilities as a core selection criterion. Look for S2P suites that offer robust data quality tools, seamless data integration across modules, and user-friendly interfaces for efficient data access and analysis.
- **3. Create AI governance.** Use clear guidelines on data ownership, access controls and security protocols for AI-powered tools. Prioritize data privacy and ensure compliance with relevant regulations when working with third-party data sources.
- **4. Develop a Generative AI (GenAI) roadmap.** Identify areas where GenAI can significantly improve processes and workflows, but also ensure that the data foundation is robust enough to support these advancements.





Creating a Circular Economy for Old Solar Panels

Businesses and residences in the U.S. continue to add solar power, but now needs a sustainable way to dispose of the panels that no longer work or that have reached end of life.

s the nation's solar industry continues to install a record-breaking volume of equipment each new quarter, a new problem is mounting: how to responsibly dispose of all the solar panels that are broken, have reached end of life or are simply unusable.

Renewal energy of any kind is a good thing, of course, but it also appears to be presenting some unintended negative consequences. "Solar is becoming the dominant form of power generation," SOLARCYCLE's CEO Suvi Sharma told *CNBC*, citing an EIA report stating that 54% of new utility-scale domestic electric-generating capacity in 2024 will come from solar.

"But with that comes a new set of challenges and opportunities," Sharma continued "We have done a phenomenal job making solar efficient and cost-effective, but really have not done anything yet on making it circular and dealing with the end-of-life panels."

A Booming Solar Market

Nationally, solar contractors installed 11.8 gigawatts-direct current (GWdc) of capacity during the first quarter of 2024, according to *U.S. Solar Market Insight Q2 2024*, a Solar Energy Industries Association (SEIA) report. SEIA estimates that total U.S. solar module manufacturing capacity now exceeds 26 gigawatts annually.

According to SEIA, the utility-scale segment had a "remarkable quarter," putting 9.8 GWdc of projects in the ground—more than the annual total for this segment as recently as 2019. Overall, photovoltaic (PV) solar accounted for 75% of all new electricity-generating capacity additions in the first quarter of 2024, remaining the dominant form of new generating capacity in the US.

This presents a double-edged sword for the solar industry, which now has to come up with a way to safely and responsibly dispose of (or else reuse) panels that last anywhere from 20-30 years (certain types have a lifespan of about 40 years). After that time, the panels' power production and efficiency will decline, making them less effective at converting the sun's energy into power for a home or business. Most panels have a "solar panel degradation rate" of roughly 0.5% annually.

Solutions Wanted

Both wind and solar energy are important players in the nation's power grid and "key to the nation's growing need to reduce dependence on fossil fuels, lower carbon emissions and mitigate climate change," CNBC points out. "But at the same time, these burgeoning renewable energy industries will soon generate tons of waste as millions of photovoltaic (PV) solar panels, wind turbines and lithium-ion EV batteries reach the end of their respective lifecycles."

So what's being done to curb the problem? According to CNBC, several startups are working to create a sustainable circular economy focused on recovering, recycling and reusing these core components of climate tech innovation.

For example, SOLARCYCLE has built a Texas recycling facility that extracts 95% of the materials from end-of-life solar panels. The company then sells recovered silver and copper on commodity markets and glass, silicon and aluminum to panel manufacturers and solar farm operators.

As the largest solar panel manufacturer in the U.S., First Solar is another company making progress in this area. The company has an in-house recycling program that extracts metals and glass from retired panels and manufacturing scrap, effectively creating a "closed-loop semiconductor recovery" for use in new modules.

More to Come

With all eyes on companies' sustainability initiatives right now, expect to see more entities getting involved with panel recovery, recycling and reuse in the near future. "It's important to make sure we keep in mind the context of these emerging technologies and understand their full lifecycle," NREL's Garvin Heath told CNBC. "The circular economy provides a lot of opportunities to these industries to be as sustainable and environmentally friendly as possible at a relatively early phase of their growth."





All-Star Webinar Cast Addresses the Nation's Cybersecurity Issues

As the list of cybersecurity threats and vulnerabilities that public and private organizations have to worry about grows, Politico scrambled a group of experts to discuss the problems and brainstorm solutions.

n June 26th there was a meeting of the minds in Washington, D.C., where a group of government officials and supply chain experts converged to discuss how to go about securing the nation's supply chain against the growing number of security vulnerabilities. The presentation was both timely and relevant in an era where post-pandemic supply chain fraud is increasing by 13% every year.

"Given the rapidly evolving and highly sophisticated nature of modern cyberattacks, logistics firms and, by extension, their vendors and suppliers should be well aware of the cyber threat

landscape," Institute of Supply Management (ISM) states, pointing to the 2021 ransomware attack on Colonial Pipeline as one of the most notable examples of this, but certainly not the only one. That particular group of nefarious cybercriminals disrupted fuel and gas supplies to regions in the Southern U.S., resulting in a \$4.4 million ransom payment and devastating socioeconomic fallout.

To help sort through the long list of vulnerabilities, find solutions and also talk about how Uncle Sam is shielding the country against current and future threats, Politico hosted On the Watch: Securing America's Supply Chain for Critical

Infrastructure at the end of June. Some of the notable participants were Doug Bush, assistant secretary of the Army; Jeannette McMillian, office of the director National Intelligence; and U.S. representatives Jake Elizey (Tex.) and Mikie Sherrill (N.J.).

The presentation was sponsored by Exiger, an artificial intelligence (AI) supply chain company that also had several panelists on call. Together, these public and private sector representatives discussed the latest challenges and solutions for protecting the supply lines into America's critical infrastructure.

Political & Policy Implications

Politico's Kevin Barron kicked off the 90-min. event by discussing the importance of both China and cybersecurity in the modern supply chain. After the COVID-19 pandemic, he says, more people started paying attention to the supply chain and the reliance on other countries for certain goods. Barron emphasized the need for increased coverage and understanding of critical minerals and metals, as well as cybersecurity and insider threats.

Barron also mentioned the political and policy implications of the supply chain issue, especially in a presidential campaign year. "We all remember when a lot more people in the world started to pay attention to the supply chain and realizing maybe we shouldn't be relying on others for certain things," Barron said. "That's become an enormous news topic and one that we'll be hearing about for a long, long time."

Exiger's Brandon Daniels and With Honor's Rye Barcott continued the COVID discussion, noting that counterfeit metals are getting into syringes that deliver lifesaving drugs while "Russian software is lurking inside of our federal government infrastructure." Other problems include companies "masquerading as U.S. entities" when they are actually owned by adversaries.

McMillian took us on a reflective trip about eight years in the past, at which point "finding the smoking gun" was the government's primary response mechanism for cybersecurity issues. She says the focus has since changed and now involves more public-private partnerships centered on early detection and threat minimization. "It takes that [kind of] partnership to make sure we can continue to collaborate and have that transparency across the supply chain landscape," McMillian said.

Asked by Barron whether the government is partnering with private industry to a great extent in 2024, Daniels said that bridge exists and is focused on "building and maturing operational collaboration so we can secure our critical infrastructure against all threats and hazards." The partnership has evolved, he added, as has the widespread understanding that our critical infrastructure is on the front lines (namely in cyberspace).

There's still more work to be done. "No one has enough of the right people to do this; everyone wants more," said Daniels, who added that the Department of Homeland Security (DHS) has a council that's focused on using AI throughout the department's various missions, cybersecurity included.

Getting to the Bottom of the Problem

On a different panel, retired Air Force Major General Cameron Holt, who is now president of Exiger Government Solutions, talked about the government's attempt to reshore manufacturing that was taking place in China. "The Chinese Communist Party has really been focused on what America does not see as war, which is economic and information coercion and manipulation in a predatory fashion," Holt explained. "And over the decades they've been engaged in that in a very methodical process."

Exiger's Katie Arrington discussed how companies are "masquerading" as U.S.-based organizations and moving from country to country in an attempt to continue doing business with domestic private and public organizations. "Cameron and I were in the Pentagon together, and one of the biggest things that we struggled through was how do we share risk without getting sued?" Arrington explained, noting that most organizations lack clear visibility over suppliers, and particularly past Tier One.

The answer may lie in heightened awareness of the potential threats and vulnerabilities that organizations may be exposed to. "Industries need to understand that our adversaries are out to play to win," Arrington said. "Industry is building is our national defense, and if we're not working with them side-by-side—the Department of Defense (DoD), regulators, legislators and the White House—to create requirements to fund and resource it, we're never going to get to the bottom of this."

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 BRIDGET MCCREA | Contributor





Regulators Continue to Set their Sights on Big Tech

European and U.S. regulators take aim at big tech, but their actions could be curtailed by a new SCOTUS ruling.

onsumers, businesses and public organizations may have whittled their lists of tech providers down considerably in recent years, but the global regulatory bodies now appear to be set on expanding those options by taking aim at some of the world's largest technology companies. Big tech firms like Apple, Meta, Amazon, Google, Microsoft and others are dealing with the onslaught of scrutiny overseas while also preparing for similar challenges on the domestic front in the near future.

Antitrust concerns, data privacy and content moderation are three of the top issues that are surfacing right now, and that regulators seem to be most focused on. This "wave of regulation" aligns with concern over the immense amount of power wielded by big tech companies. And while the outcome of these efforts remains up in the air, it's clear that the days of these companies operating outside of the watchful eye of both domestic and international regulators are numbered (or in some cases, already gone).

Nvidia Corp., which makes graphics processing units (GPUs), system on a chip units (SoCs) and application programming interfaces (APIs), could be next in line for regulatory scrutiny.

"When it came to winning over European users, Big Tech companies pretty much hopped over from the US and declared, 'I came, I saw, I conquered," Abigail Rubenstein writes in "Big T ech Faces European Crackdown." "But European antitrust regulators have greeted them with much more skepticism, and it looks like AI's \$3 trillion hero, Nvidia, will be the next one to face a potential smackdown."

The Wave of Regulation Rolls In

Citing a *Reuters* report on the matter, Rubenstein writes that "antitrust regulators are about to charge Nvidia with allegedly engaging in anticompetitive conduct, which would make it the first regulator to accuse the chipmaker of abusing its position since it came to dominate the AI business."

With the EU v. Big Tech battle lines drawn, it's not all smooth sailing for big tech on the home front. "US regulators have also taken aim at Big Tech—and despite some embarrassing losses, they aren't slowing down," she added. "Last month, the Department of Justice and the Federal Trade Commission reportedly reached a deal divvying up how to investigate Microsoft, OpenAI, and Nvidia."

In June, *Reuters* reported that the DOJ and FTC had reached a deal clearing the way for potential antitrust investigations into the dominant roles that Microsoft, OpenAI and Nvidia play in the artificial intelligence (AI) industry.

"The agreement between the two agencies shows regulatory scrutiny is gathering steam amid concerns over concentration in the industries that make up AI," Reuters says. "Microsoft and Nvidia not only dominate their industries but are two of the world's biggest companies by market capitalization since Nvidia's market value recently surpassed \$3 trillion."

The move to divvy up the industry mirrors a similar agreement between the two agencies in 2019 to divide enforcement against large tech companies, which ultimately saw the FTC bring cases against Meta and Amazon, with the DOJ also suing Apple and Google for alleged violations. "Those cases are ongoing and the companies have denied wrongdoing," Reuters adds.

SCOTUS Curtails Agency Power

However, a new Supreme Court ruling could put a kink in U.S. regulators' plans to take more control over and/or break up some of the nation's largest tech companies. Earlier this month SCOTUS curtailed federal agencies' powers by overturning a decades-old legal precedent giving agencies greater leeway to interpret ambiguous federal laws, according to the *Washington Post*.

The court's decision Loper Bright Enterprises v. Raimondo struck down a principle known as the "Chevron deference," effectively empowering business and industry groups to avoid tighter tech regulations proposed by the administration. "If they succeed in slowing regulation, it could put the United States further behind its counterparts in Europe," the publication adds, "who have moved more swiftly to set new rules."

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Increase in Cyberattacks Fueling Cybersecurity Market Growth

Data breaches hit an all-time high last year. Here's how companies are using technology to address this growing concern.

DK Global is the latest of many organizations to be hit by cybercriminals this year. This time around, the ransomware attack brought an entire dealership management system (DMS) to its knees. According to CBS, fallout from the attack lasted for weeks for the 15,000 car dealerships that use CDK's sales, inventory management and customer relations systems to run their businesses.

Just as CDK was working to recover from the first attack last week, it was struck by a second attack. "Late in the evening of June 19, we experienced an additional cyber incident and proactively shut down most of our systems," CDK told *CRN.com*, which said that the system shutdown "resulted in an outage that has severely affected thousands of car dealerships."

While obviously monumental for the company that was attacked, the dealers that rely on its products and services (and their end customers), this was far from being an isolated incident. With digital transactions now commonplace for most industries, in fact, the number and intensity of cyberattacks appears to be growing exponentially.

Last Year's Solutions Won't Cut it

In a new cybersecurity risk report, MIT discusses how cybercriminals are finding new ways to exploit personal and business data. Data breaches increased by nearly 20% in the first nine months of 2023 compared with all of 2022, it says, during which time ransomware attacks escalated by almost 70%. In fact, MIT says data breaches hit an all-time high in 2023— a trend fueled by increasing online interactions that put personal data in the crosshairs of criminal activity. As a result of these threats, cybersecurity has "escalated from an IT-level discussion to a C-suite and boardroom issue, with worldwide spending on security and risk management projected to hit \$215 billion in 2024," MIT says.

Still, hackers are finding more creative ways to bypass security measures, motivated by the troves of unencrypted personal data being collected and stored in enterprise systems. "Most companies are aware of the threat and are doing things to improve security, but the bad guys haven't stayed still either," MIT's Stuart Madnick said in the report. "You have to think beyond what you did for protection last year."

OT Security Comes to the Forefront

Industrial operations are increasingly under threat as the industrial world embraces waves of digitization and smart manufacturing trends. Operational technology (OT) attacks are a growing concern, ABI Research reports, due to their more frequent, widespread nature.

By definition, OT cybersecurity safeguards operating technology assets, systems and processes from cyberattacks while also complying with strict regulatory requirements. In its report, ABI says the OT cybersecurity market is on track to grow from \$12.75 billion in 2023 to around \$21.6 billion by 2028. It says network security and segmentation technologies will experience the most growth, followed by identity and access management and end-point protection.

"Every industrial sector imaginable is embracing some digitization and concept of Industry 4.0. As a result, the potential for cyber threats has also increased, prompting a growing demand for robust defensive measures," ABI's Michael Amiri said. "This market has lots of space for growth, as there is considerable capacity to expand smart industries."

For example, ABI says cybersecurity professionals are talking about how OT and Internet of Things (IoT) spending could surpass IT spending in the future, as the number of laptops, tablets, and other IT-related devices has hit a plateau.

"The fact is that OT and IoT devices are just beginning to expand and are far more numerous," Amiri explained. "An industrial plant could have tens of thousands of sensors, routers, and PLCs, all of which must be protected from malicious actors."





U.S. Renewable Energy Projects are Ramping Up

A few different states are putting their best foot forward when it comes to introducing and supporting new renewable energy projects within their borders.

ore U.S. states are setting ambitious goals for renewable energy generation, driven by various economic, environmental and political factors. In July, Massachusetts introduced its new Energy Transformation Advisory Board, which will help guide the state's transition from fossil fuels to renewable energy. Massachusetts has established a goal of a 50% reduction in greenhouse gas (GHG) emissions by 2030 and net-zero emissions by 2050.

According to AP, the board will advise the newly-established Office of Energy Transformation, which is tasked with "affordably and responsibly accelerating the state's gas-to-electric

transition and readying the electric grid to meet the state's climate and clean energy mandates."

First Utility-Scale Offshore Wind Project

Connecticut and Rhode Island are currently developing the first utility-scale offshore wind project, known as "Revolution Wind." Once in operation, the project will be able to generate 400 megawatts of clean, affordable offshore wind power for Rhode Island and 304 megawatts of the same for Connecticut—enough clean energy to power more than 350,000 homes across both states and bring each closer to reaching their climate targets.

Construction of the project's advanced foundation components wrapped up in June and crews have since made steady progress installing the project's offshore turbine foundations.

"Rhode Island's commitment to Act on Climate requirements and achieving our 100% renewable energy standard by 2033 will be met through projects like Revolution Wind," said Acting State Energy Commissioner Chris Kearns in a press release. "This multi-year effort with this offshore wind project plays a major role in the state's emission reduction efforts and growing the state's clean energy economy."

Renewable Projects in the City

New York recently announced a new, large-scale renewable energy solicitation for the development of new large-scale land-based renewable energy projects. The new effort supports the State's Climate Leadership and Community Protection Act goal of obtaining 70% of New York's electricity from renewable sources by 2030.

Administered by the New York State Energy Research and Development Authority (NYSERDA), the solicitation is the latest in a planned series of procurements of land-based large scale renewable projects, Solar Power World reports. It includes key provisions from the latest rounds of renewable energy procurements.

"By advancing land-based renewable energy projects, New York is expeditiously moving our state forward as a leader in the transition to reliable and clean energy," NYSERDA's Doreen M. Harris said. "NYSERDA remains committed to strengthening our renewable energy pipeline and delivering increasing amounts of renewable electricity to further bolster our grid of the future."

More Clean Energy, Please

With the goal of achieving 100% clean energy use by 2040, Michigan recently introduced a clean energy package that was signed into law late last year. By 2030, Michigan plans to be producing 50% of its energy from renewable sources and 60% from renewables by 2035. By 2040, the state wants to be producing all its energy from clean sources.

Introduced in 2020, the MI Healthy Climate Plan includes a "Roadmap to 2030" focused on ensuring meaningful progress on climate before the end of the decade and ensuring alignment with the goals of the Paris Climate Agreement.

The roadmap prioritizes areas where the biggest, most rapid gains in GHG reductions can be made, including electricity, transportation and buildings.

The Clean Energy and Jobs Act includes several bills focused on improving state energy efficiency requirements and streamlining the permitting processes for solar and wind projects.

"The Clean Energy and Jobs Act puts Michigan on a path for some of the fastest buildout in the nation of renewable energy, like wind and solar," said Lisa Wozniak, executive director of the Michigan League of Conservation Voters, in a press release, "accelerating the cleanup of our air and protecting our Great Lakes and drinking water."





U.S. Pushes for Responsible Sourcing from the DRC

Organizations are being asked to more closely examine and take action on conflict minerals.

he tantalum, tin, tungsten and gold (3TG) used to build everything from capacitors to smartphones to welding electrodes are often mined in a way that abuses human rights, damages the environment and finances armed groups in the Democratic Republic of Congo (DRC). The 3TGs are labeled "conflict minerals" when their extraction and trade undermine human rights and fuels violence.

Today's complex, global supply chains can make it difficult to tell whether a final electronics product was made with conflict minerals. And while the Dodd-Frank Act of 2010 requires U.S. companies to disclose their use of conflict minerals, conduct due diligence and then report on their findings, there's still

more work to be done in this area before conflict minerals can be completely driven out of the world's supply chains.

New Concerns Emerge

In July, the U.S. Department of State (DOS) issued a statement of concern regarding conflict minerals that may be originating in Rwanda and Eastern DRC. Of particular concern is the illicit trade and exploitation of certain minerals from the African Great Lakes Region. In many cases, these minerals directly or indirectly benefit armed groups and move out of the country through Rwanda and to Uganda before moving to major refining and processing countries.

"These supply chains facilitate illicit exploitation and taxation of these minerals, often involving acts of corruption," the DOS says. Mineral extraction, transportation and export often involve a wide range of human rights and labor rights abuses, it adds, including forced labor, child labor, violations of the DRC's minimum age for employment, and sexual and gender-based violence, particularly in certain artisanal mining areas.

"The U.S. government encourages reform of flawed industry-led traceability initiatives in the region through, among other things, greater transparency, and stronger due diligence mechanisms," the DOS says.

"Although there have been important changes and evolutions in standards development and subsequent implementation by many actors," it continues, "the risks associated with human rights and labor rights abuses, corruption, and conflict finance have escalated because of the renewed and ongoing serious conflict, particularly since 2023."

Clarifying the Potential Risks

The DOS says its latest statement was issued in response to requests from the private sector for the U.S. government to clarify potential risks associated with manufacturing products using minerals extracted, transported or exported from the eastern DRC, Rwanda and Uganda. These minerals are used in the production of electronic products, jewelry, automotive products and many other manufactured goods throughout the world.

"The U.S. government continues to take steps aimed at helping transform the illicit flows of these minerals into a responsible trade rooted in the DRC that helps build the economic foundation for a sustainable peace in the DRC and the broader region," the DOS notes. The steps include:

- Encouraging responsible investment in and sourcing from the region, including by U.S. companies.
- Identifying stronger due diligence mechanisms that the U.S. and other companies can voluntarily implement in sourcing minerals from the African Great Lakes Region.
- Issuing periodic statements regarding conflict concerns in the region.

The DOS says some supply chain operators have "demonstrated the potential to ensure conflict-free sourcing of tin, tantalum, and tungsten," using mechanisms like the OECD

Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas and the Regional Certification Mechanism (RCM) developed by the International Conference on the Great Lakes Region (ICGLR).

Unfortunately, the DOS also says companies appear to have "eased their focus" on meaningful due diligence. "Overall," it adds, "the flaws in traceability schemes in the region have not garnered sufficient engagement and attention to lead to necessary change."

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Current Supply Chain Trends

A roundup of July's top global supply chain news, events and trends.

to make headlines as organizations work through some of the newer challenges that are emerging in 2024 while also addressing some of the lingering issues that have taken hold over the last few years. Attacks on ships in the Red Sea have been impacting ocean carriers and are now causing some congestion at key ports in countries like Singapore.

Despite the record heatwaves and summer vacations, July was a busy month for the world's supply chains. In California, the Port of Long Beach broke ground on a new facility that's expected to expand the facilities' freight rail capacity while simultaneously eliminating over 5 million tons of pollution annually.

upply chain-related news and events continue According to Gov. Gavin Newsom's office, dignitaries came together to celebrate the groundbreaking of the "Pier B On-Dock Rail Support Facility," which he calls "one of the signature infrastructure projects upgrading California's nation-leading supply chain."

> The \$1.5 billion project is also known as "America's Green Gateway." It will allow trains up to 10,000 feet long to be loaded and unloaded directly on the dock at the Port of Long Beach, helping transition cargo more efficiently and sustainably. "This project exemplifies our work to create jobs, cut pollution, eliminate bottlenecks and build a more dynamic supply chain—faster," Newsom said in a statement.

To Strike or Not to Strike

The Canadian rail strike continues to be a hot topic of conversation, with more than 9,000 railroad workers represented by Teamsters Canada Rail Conference recently authorizing such a strike. Agriculture Dive says the prospect of a strike is creating uncertainty among shippers, with agricultural companies particularly concerned that the transport of fertilizers and major commodities could be impacted.

The Canadian government now must rule on the strike, but in the meantime agricultural exporters have warned that a rail shutdown could have "devastating consequences" for the U.S. and Canada alike, the publication reports. Represented employees include locomotive engineers, conductors, train and yard workers, and rail traffic controllers. Nearly 3,300 are employed by CPKC and around 6,000 work for Canadian National.

Major Strikeout

While the true impacts of the CrowdStrike outage have yet to be measured, the worldwide issue upended everything from air travel to hospital care to banking and is said to have caused Fortune 500 companies to lose over \$5 billion as a result, The Washington Post reports. CrowdStrike's faulty software update crashed Windows computers around the world.

Early reports said that the outage hit global supply chains hard, with air freight among the most highly impacted industries. According to CNBC, thousands of flights were grounded or delayed at the world's largest air freight hubs in Europe, Asia and North America.

"Shippers already had concerns about air freight capacity due to huge increases in demand in 2024, driven largely by the extraordinary growth in e-commerce goods being exported from China to Europe and the U.S.," one consultant told CNBC. "Available capacity in the market is already limited so airlines are going to struggle to move cargo tomorrow that should have been moved today."

Aerospace Supply Chain Backups

While most of the world's supply chains have somewhat "normalized" in the aftermath of the pandemic disruptions, aerospace companies still appear to be unable to find the parts and components they need to be able to complete their projects. The WSJ reports that Boeing has roughly 200 or so unfinished planes on its assembly line right now, and that some of the partially-completed planes are even being stored in employee

"Some of the planes are awaiting interiors; others need engines. Dozens more are awaiting delivery to China," the publication says. "Unable to fly, the planes aren't delivering much-needed cash as the jet maker burns through more than \$1 billion a month. And they present a host of logistical challenges."

There's a potential bright spot in all of this: WSJ says that Boeing is building planes more slowly as it works to improve quality. This could be creating some of the backlog of unfinished planes. For example, the manufacturer has delivered 175 planes through June of 2024 versus 266 through the first half

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5 Ways Procurement is Evolving in 2024

A new report details some of the key shifts that are currently taking place in the procurement function.

s chief procurement officers (CPOs) and their teams become increasingly indispensable for companies, the role that these individuals play in the enterprise continues to shift and expand. In a new *Economist Impact* report, SAP and Ariba highlight some of the key changes that are taking place and what procurement teams should be doing now to prepare for what's ahead.

For the report, SAP and Ariba surveyed more than 2,300 C-suite executives to get a pulse on current and future procurement trends. Some of the key topics covered included procurement priorities and capabilities in risk management, internal and external collaboration, digitalization and sustainability.

Here are five different ways that the procurement function is evolving right now:

Procurement is aligning with the broader organization on strategic goals. Reporting is pivoting towards chief operating officers (COOs): This year, 44% of procurement teams are reporting to the COO, compared with 26% in 2023 and 34% in 2022. By contrast, just 23% now report to the CFO, the typical reporting line. "This shift in relationships opens avenues for procurement to align more closely with the strategic goals of the organization," Economist Impact says, "by involving themselves in discussions on themes like innovation, rather than solely cost containment, for example."

Inflation is driving the need for better cost management.

The survey found that C-suite executives view monetary uncertainty—inflation included—as the top risk over the next 12-18 months, for both procurement and business as a whole. Around half (49%) cite it as their top priority compared with other procurement risks, a considerable jump from only 20% last year.

ESG is becoming a bigger focus. As key stakeholders become more socially and environmentally conscious, procurement teams are incorporating cleaner, more ethical practices into their key performance indicators (KPIs). "These ultimately contribute to procurement's expanding remit, particularly around business' ESG goals," the publication adds.

Effective collaboration remains an elusive goal for many.

According to the survey, 75% of executives say procurement collaborates effectively with business on issues of strategic importance (up from 53% last year), but only a fraction of these (18%) have high confidence in procurement doing so, and only 14% have high confidence in the application of procurement insights across the organization. "Procurement has yet to gain the full trust of stakeholders in this area," *Economist Impact* states.

Digitalization goals aren't always easy to hit. The survey found that just 32% of executives are highly confident in procurement's ability to automate procurement and even fewer (16%) are highly confident in procurement's ability to manage spend, compared with higher levels of confidence for other KPIs, such as strategic sourcing (39%) and category management (55%). "Business stakeholders fixating on return on investment for technologies and skimping on innovation training," the publication notes, "are leading to the rejection of new capabilities and undermining confidence in procurement's abilities to manage technology and influence spending."

AI: The New Frontier for Procurement

Looking ahead, *Economist Impact* says that procurement's success on the digitalization front rests on the function's ability to adopt and master emerging technologies. "Accelerating digitalization is the highest procurement priority for the majority of respondent organizations over the next 12-18 months, and artificial intelligence (AI) adoption is a centerpiece of these efforts, cited by 44% as a top technology priority," it says. "The respondents make [it] clear that AI should play a key role in improving procurement process automation."