

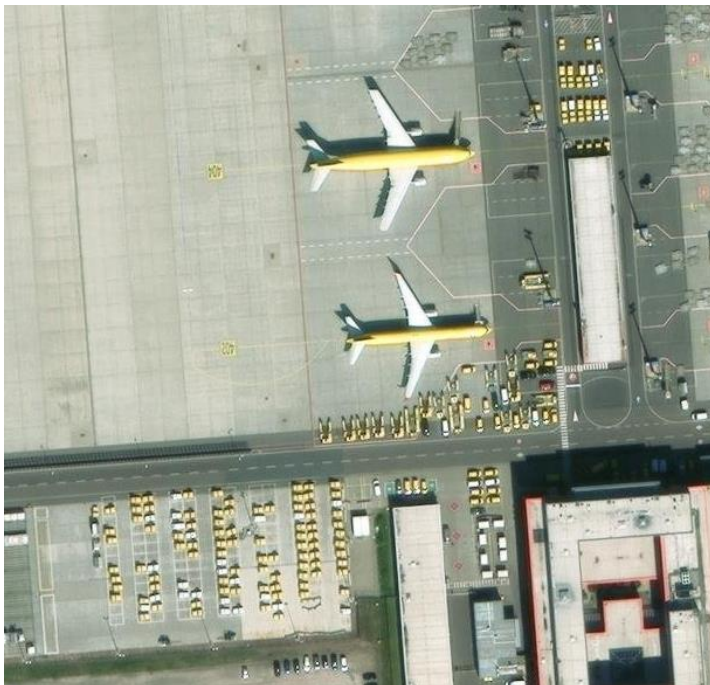


ARTEMIS RESEARCH UPDATES

FALL 2024

WELCOME TO THE FALL 2024 ISSUE of Artemis Research Updates. This past quarter has seen several unexpected world events affecting risk and compliance in global trade. A nation-state actor's use of the global supply chain for explosives attacks has caused widespread concern about security within the global logistics industry. Hurricane Helene's destruction of a North Carolina town will likely rock the semiconductor industry by causing a scramble for new suppliers of high-purity quartz. The U.S. Department of Commerce struck back at Russian chemical use in Ukraine through new restrictions on chemical precursors, and listed a raft of new entities for support to Russia's war in Ukraine. Additionally, new export restrictions in the Netherlands now protect the world's most critical chip manufacturing technology. Finally, the BIOSECURE Act, introduced in January 2024 and currently working its way through Congress, will expand the scope of prohibited interactions with foreign biotechnology entities, requiring that biotechnology companies cease such interactions if they wish to retain eligibility for U.S. Government contracts and funding.

Here at Artemis, we help our clients assess the risks to their organizations posed by such global events. To this end, we recently [published](#) on the emerging—and revolutionary—field of proteoform research, helping companies prioritize and protect groundbreaking technology from illicit procurement. We also created a short [explainer](#) of how air waybills can be used to help customers identify high-risk activity. Moving forward, we anticipate more comprehensive assessment of the implications of the BIOSECURE Act, as well as an article on risks and mitigation options associated with free trade zones. Find these and other insights in this newsletter and on our website at www.artemisresearchgroup.com.



Aerial view of the DHL logistics hub in Leipzig, Germany
(Source: U.S. Geological Survey)

Nation-State Actors Pose Risk to Air Cargo Industry

In early November, [news sources](#) revealed Russian covert operations aiming to start fires aboard cargo or passenger aircraft flying to the United States. Disguised incendiary devices caused fires at DHL logistics hubs in Germany and the United Kingdom, which officials believed were test runs for future operations targeting the United States.

We at Artemis Research judge this use of global supply chain infrastructure for attacks by nation-state actors poses an astronomical escalation in risk for these companies—particularly since we assume

state actors are more sophisticated than most terrorist groups threatening the aviation industry in the past, and are therefore less likely to be detected via existing safeguards. Companies may be better able mitigate this danger by reevaluating their due diligence screening practices to identify vulnerabilities in their physical security and potential presence of high-risk customers. See the U.S. Customs and Border Protection's [Customs Trade Partnership Against Terrorism \(CTPAT\) program](#) for existing best practices.



Aerial view of a mine in Spruce Pine, North Carolina
(Source: U.S. Geological Survey)

Hurricane Helene Likely to Upend Chip Industry

The damage to two quartz mines in Spruce Pine, North Carolina, from Hurricane Helene is likely to disrupt the global semiconductor industry, causing electronics manufacturers and suppliers of critical materials to seek alternative mineral sources. Spruce Pine is home to one of the world's only sources of high-purity quartz critical for the semiconductor industry, and according to [one author](#), damage to Spruce Pine would be the "probable end of computer chip manufacture as we know it."

In late September 2024, the town was [flooded](#) by more than two feet of rain during Hurricane Helene, [destroying](#) critical power and transportation infrastructure, and threatening the future of the mines. Though the facilities [reopened](#) within a few weeks, Artemis Research judges this highlights a critical supply chain vulnerability which will likely prompt global microelectronics manufacturers to seek alternative supplies of high-purity quartz. Given the extraordinarily limited number of similar deposits worldwide, this will very likely cause competition for resources and the potential for control of the industry by whoever identifies and exploits the deposits first.

Event Highlight: ACAMS Nordics Chapter Meeting

New Legislation to Significantly Increase Finland's Enforcement of Russia Sanctions

We assess recent changes in Finnish anti-money laundering legislation will significantly increase Finland's ability to support international sanctions regimes against Russia, based on briefings given at the [Nordics Chapter of the Association of Certified Anti-Money Laundering Specialists](#) meeting in late October. According to the speakers, Finland's sanctions prior to 2022 were primarily focused on Iran and North Korea, though expanded after Russia's invasion of Ukraine in February 2022 in line with other European Union sanctions. In autumn of that year they were further amended to include anti-money laundering legislation, and the Finnish Financial Supervision Authority (FIN-FSA) began to implement "Know Your Customer" (KYC) requirements and risk assessment and compliance regulations. Anticipated future changes include regulations similar to the U.S. Office of Foreign Assets Control and the criminalization of sanctions evasion as a predicate offense for money laundering. Artemis Research projects that Finland's enforcement capabilities will further increase as these laws go into effect.

Legislative Highlight: Implications of the BIOSECURE Act

We assess that, under the draft [BIOSECURE Act](#) currently moving through the legislative process, there is a risk biotechnology companies and research entities may lose U.S. Government funding if they do not reassess their current partners and service providers to avoid relationships with several named Chinese companies of concern.

In short, the version of this [legislation introduced in January 2024](#) prohibits executive branch agencies from using equipment or services provided by a company of concern—namely, BGI, MGI, Complete Genomics, WuXi AppTec—or providing funding to entities which use their services. Though we recommend obtaining an official legal opinion on these matters, Artemis Research notes this likely bars the U.S. Government from providing grants or contracts to organizations which use these companies' services.

Artemis Research assesses biotech entities can reduce the risk of funding loss and compliance violations by scrutinizing their value chain for equipment and services provided by—or to—these companies. Additionally, they can ensure comprehensive due diligence on future partners to prevent inadvertent engagement with these companies operating under a different name.



Aerial view of the US Capitol, Washington, D.C.
(Source: U.S. Geological Survey)

Selected Upcoming Trade and Technology Conferences

[R&D Procurement & Outsourcing in](#)

[Biopharma Summit](#) – December 11th - 12th, San Diego, CA (Technology, Procurement)

[Arizona Photonics Days](#) – January 24th - 25th, Tucson, AZ (Technology)

[SPIE Photonics West](#) – January 25th - 30th, San Francisco, CA (Technology)

[Manifest Conference](#) – February 10th - 12th, Las Vegas, NV (Shipping and Logistics)

[Pittcon Conference and Exposition](#) – March 1st - 5th, Boston, MA (Technology)

[ProcureCon Indirect West](#) – March 3rd - 5th, Las Vegas, NV (Procurement)

[National Customs Brokers and Forwards Association of America \(NCBFAA\) Annual Conference](#) – April 6th - 9th, Phoenix, AZ (Shipping and Logistics)

[Biotechnology Innovation Organization \(BIO\) Convention](#) – June 16th - 19th, Boston, MA (Technology)

Event Highlight: US-ASEAN Business Council Roundtable

Southeast Asian Nations Desire Likely Increased Western Trade Engagement but Require Additional Support

In late October 2024, the [US-ASEAN Business Council](#), an organization which supports trade relationships between the United States and the Association of Southeast Asian Nations (ASEAN), hosted the Global Supply Chain Security and Southeast Asia: A Roundtable Discussion with two additional Washington, D.C.-based trade associations. The panel discussed both efforts of Southeast Asian nations to align with Western trade standards, as well as challenges establishing sufficient human capital in alternate locations. We at Artemis Research assess this suggests that ASEAN countries may desire increased Western engagement on trade issues but may require external assistance to become a long-term alternative to China.

The speakers provided several examples of ASEAN countries' increasing implementation of Western-style standards. This suggests the potential for increasing US-ASEAN cooperation on export compliance issues, particularly as Western companies seek to [de-risk](#) themselves from China and Russian supply chains [shift east](#). The panel noted that both Singapore and Malaysia are creating entities similar to the US Committee for Foreign Investment in the United States (CFIUS), which we assess increases the capacity for intergovernmental cooperation to block business ventures harmful to global security. Additionally, the panel indicated ASEAN countries are attempting to harmonize customs rules and procedures and among the global leaders in digital trade documentation. This would likely increase both their capacity as alternative trade partners as well as their ability to detect and disrupt illicit shipments.

The panel also discussed how technology companies are attempting to de-risk from China but find they often lack an ecosystem with a sufficient number of qualified engineers in other locations. One example the speakers provided is how the Taiwanese chip manufacturer TSMC established a facility in Phoenix, Arizona, though ultimately needed to reach back to their former partners in China for additional expertise, causing regulatory problems for the company. *(Comment: The author has no additional substantiation for this anecdote.)* In order to counter such challenges, countries like Vietnam are seeking assistance from the United States to train engineers, and venture capital companies are establishing incubators in Southeast Asian countries to encourage indigenous expertise. Artemis Research assesses this presents an opportunity for U.S. companies to invest in training and relationships in these countries to develop reliable trading partners in the future.

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