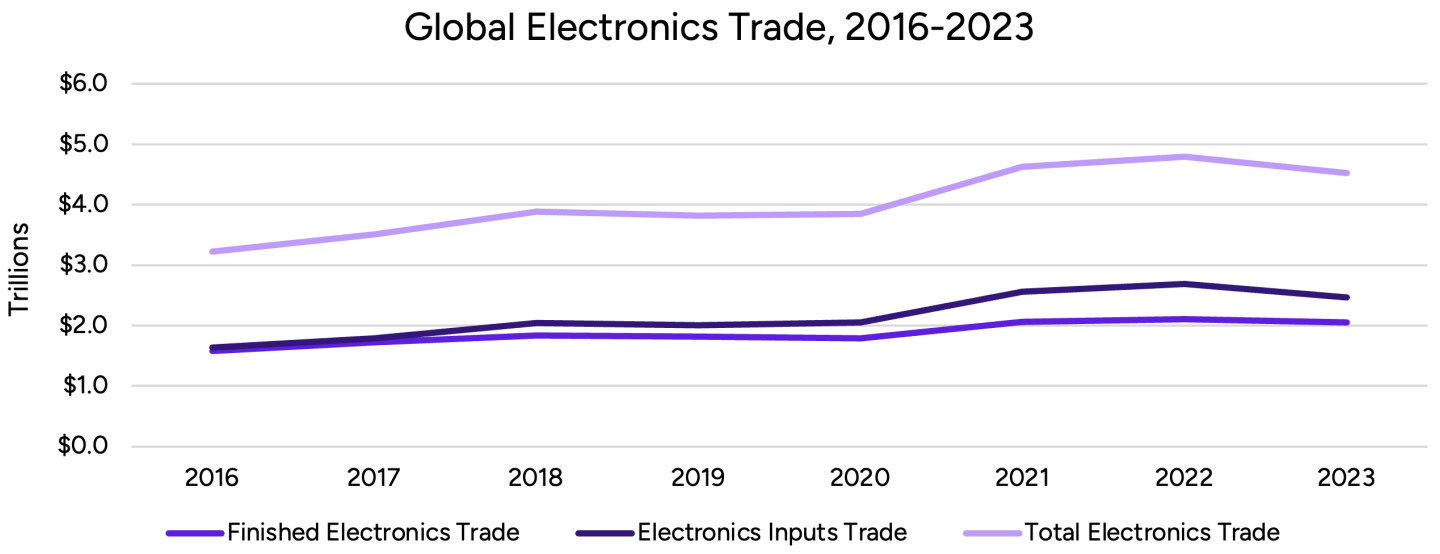
Global Electronics Association™

Interconnected: Global Electronics Trade in an Age of Disruption

Inaugural Electronics Trade Flow Study 2025 Overview

On June 23, 2025, the Global Electronics Association released Interconnected: Global Electronics Trade in an Age of Disruption. The inaugural study is the first comprehensive mapping of electronics interdependencies at this scale.

Because every phone, server, and electric vehicle is built from parts sourced in dozens of countries, even small shifts in trade patterns ripple through the entire tech economy. To monitor these dynamics, the Global Electronics Association has developed its new trade flows research program to cover approximately 150 economies and thousands of electronics products across electronic inputs, components, and finished electronics goods.



Key Findings

1. **Electronics now drives one-fifth of world trade.**
In 2023 the sector moved $4.5 trillion in goods, just over 20% of all global merchandise commerce. In comparison, the automotive industry, which is often cited as having complex international supply chains, had global trade totaling only roughly $1.8 trillion in 2023.

2. **Components outweigh finished devices.**
Cross-border shipments of inputs, including products like semiconductors, connectors, and batteries, exceeded $2.5 trillion, outpacing the $2 trillion traded in phones, laptops and other finished electronics. Trade in electronic inputs now exceeds the value of finished goods, which underscores the complexity, sophistication, and specialization of modern electronics manufacturing.

3 **Export champions are also import powerhouses.**
China imported $630 billion in electronics components in 2023, more than the next three biggest importers of inputs combined – U.S., European Union, and Singapore. This underscores how even the world's leading exporter of finished electronics depends heavily on global inputs. Some of the fastest-growing suppliers of finished electronics, including Vietnam and India, are also among the fastest-growing importers of components. Between 2017 and 2023, India's imports of electronic inputs rose by 122%, while Vietnam's increased by 83%. Behind China, the EU and U.S. are the world's largest suppliers of finished electronics goods and both trail only China as the largest importer of electronic inputs and components.

4 **Diversification, not decoupling, defines today's trade reality.**
Vietnam, India, and Mexico have all gained share as final assembly hubs not through full vertical integration, but by embedding themselves in globally distributed production networks. Intra-Asian trade now accounts for 88% of Asia's electronics input imports and 69% of finished goods imports, reflecting dense regional integration rather than fragmentation. In the U.S., tariffs on Chinese goods shifted sourcing patterns rather than severing them, redirecting flows through alternative partners rather than eliminating reliance on global inputs.

5 **Resilience equals competitiveness.**
Final assembly economies with rising output, such as India, have maintained competitiveness by doubling-down on input imports. Resilience in upstream sourcing directly supports a country's ability to scale production and compete globally. Economies must align domestic industrial initiatives with a clear strategy for sourcing critical inputs from aboard.

Policy Implications

Interdependence is a feature, not a flaw. Electronics manufacturing depends on high-value, highly specialized components with few viable substitutes. Replacing or relocating these sources is often costly, technically challenging, and time-consuming.

The policy takeaway is clear: strategic interdependence, not isolation. Every visible trade link is underpinned by dozens of unseen ones. Effective supply chain policy starts with a detailed understanding of these dependencies and favors coordination, transparency, and targeted investment over blanket tariffs or go-it-alone mandates.

The Global Electronics Association Trade Flow Research Program

This initiative is built on a high-resolution trade dataset covering approximately 150 economies, with detailed tracking of electronic inputs and finished electronics. All trade flow figures are sourced from the UN Comtrade database, providing a consistent and comprehensive foundation, even as data release schedules vary by country.

The inaugural study draws on this platform to spotlight key regions, including the United States, European Union, China, Mexico, and India, each of which plays a distinct role in the global electronics value chain.