



## **THE CASE FOR GREATER US-INDIA SEMICONDUCTOR COOPERATION**

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As US-India ties [suffered](#) from tariff-related turmoil through the month of August, semiconductors—originally [exempt](#) from US import duties—flew largely under the radar compared to [impacted sectors](#) like textiles, jewelry, and seafood. However, in the first week of September, US President Donald Trump [renewed](#) the threat of 100% tariffs on semiconductor imports to the United States, a move that could disrupt India's growing semiconductor industry. As US policymakers weigh their options, they should be wary of derailing US-India cooperation on semiconductors—a recent success story of the bilateral relationship—through an aggressive chip tariff policy. By contrast, the United States can and should address national security and economic imperatives by deepening the US-India semiconductor relationship.

### **Background on cooperation**

Under the Biden administration, the United States increasingly pursued a strategic partnership on technology as a core pillar of the bilateral relationship with India. In 2022, the two countries [launched](#) the US-India initiative on Critical and Emerging Technologies (iCET), which sought to deepen linkages across artificial intelligence, quantum computing, telecommunications, space, biotechnology, and—crucially—semiconductors.

This flagship initiative paved the way for an outpouring of government-to-government cooperation on semiconductors, including a [2023 memorandum of understanding](#) (MoU) on semiconductor supply chains and innovation and a [2024 partnership](#) between the US Department of State and the India Semiconductor Mission to “grow and diversify the global semiconductor ecosystem,” funded via the [CHIPS Act](#). Spurred on by these government initiatives, US private sector semiconductor firms, such as Micron Technology, Lam Research, and Applied Materials, made [significant investments](#) in training, engineering, design, and fabrication in India. Importantly, US-India semiconductor cooperation began to encompass security applications, leading to the [2024 announcement](#) that the US Space Force planned to develop a semiconductor fabrication in collaboration with Indian companies Bharat Semi and 3rdiTech.

In the first months of the Trump administration, US-India semiconductor cooperation seemed set to continue apace. Following the [February meeting](#) between President Trump and Indian Prime Minister Narendra Modi in Washington, DC, the two countries appeared to upgrade the technology partnership through the launch of the US-India TRUST (Transforming the Relationship Utilizing Strategic Technology) initiative. The US private sector has continued to demonstrate enthusiasm for the Indian semiconductor ecosystem, as evidenced by [new plans](#) for a manufacturing facility in Odisha focused on glass substrates backed by Intel and Lockheed Martin. As the Trump administration rethinks the economic relationship with India and its policy approach to the global semiconductor ecosystem, the progress of the

past three years appears fragile—in this context, the case for maintaining the upward trajectory in US-India semiconductor cooperation must be made.

### Benefits of US-India semiconductor cooperation

India has proactively positioned itself as an increasingly important player in the global semiconductor ecosystem, representing a capable partner in strategic technology for the United States. The central government has adopted a robust policy agenda to boost India's chip sector—through the [National Semiconductor Mission](#), the Indian state has committed to spending US\$8.6 billion and approved 10 manufacturing facilities across the country between 2023 and 2025. In addition to this principal initiative, the Indian government under PM Modi has taken strides to develop a more permissive regulatory environment for manufacturing and foreign investment, particularly in emerging technology, via [production-linked incentives](#) (PLIs), [special economic zones](#) (SEZs), and [industrial corridors](#). These policies have laid the groundwork for an ascendant Indian semiconductor industry ready to deliver on partnerships with the US private sector.

India's unique talent pool also makes the country an attractive partner for the United States. India already [accounts](#) for 20% of the world's chip engineers, many of whom work at the Indian offices of major US companies like Qualcomm, Intel, and Nvidia. Notably, the US and Indian talent pools largely complement each other: while US firms [excel](#) in chip architecture, they lag behind in the later stages of the semiconductor supply chain. By contrast, India is [emerging](#) as an assembly and testing hub, offering opportunities for US firms with strategy and design competencies. Such firms are already betting on the next generation of Indian talent—California-based Lam Research [has pledged](#) \$29 million in software licenses as part of a collaborative effort with the Indian Institute of Science to train nearly 3,000 engineers. As the US semiconductor industry faces a [growing labor shortage](#) in the coming years, access to skilled, cost-effective Indian engineers working across the chip supply chain would represent a boon. With India's capability rising steadily—see, for instance, the [recent announcement](#) of the first

indigenous Indian microprocessor, developed by the Indian Space Research Organisation—now is the time to cement such a partnership.

Greater US-India cooperation would also directly address [core risks](#) in the semiconductor supply chain. The just-in-time manufacturing model, long lead times, and specialized knowledge requirements generate deep vulnerabilities, exacerbated by overreliance on suppliers from East Asia amid China's growing influence. US-India cooperation holds the potential to boost the [resilience](#) of semiconductor supply chains by diversifying fabrication away from traditional strongholds in East Asia, leveraging localization amid a [remarkable surge](#) in electronics manufacturing in India, and promoting visibility through government-level alignment and private sector R&D linkages. Diversification has been a well-established component of recent US semiconductor policy, but localization also deserves attention. US companies betting big on electronics manufacturing in India—[like Apple](#)—would benefit immensely from a robust Indian semiconductor ecosystem; as Chinese industrial policy has convincingly demonstrated, such [clustering](#) undergirds global competitiveness. And as firms like Apple have also shown, the pursuit of diverse and resilient global supply chains can complement [investment in US manufacturing](#) rather than replace (or displace it).

### Deepening cooperation

To deepen US-India cooperation on semiconductors, the US government should encourage US semiconductor companies to invest in the Indian ecosystem. One path could be to facilitate such investments by Intel Foundry. The decision to take a [10% stake](#) in Intel underlines the Trump administration's strategic objective to promote a national champion that excels across the semiconductor supply chain, from design to fabrication. In addition to expanding its [existing domestic operations](#), Intel Foundry will also likely look to bolster its [international footprint](#)—India would be an excellent destination, and Intel's backing of an advanced packaging unit in Odisha demonstrates

their willingness to invest in India should conducive political and economic conditions remain.

For an enduring and fruitful partnership, policymakers should make a concerted effort to integrate semiconductor cooperation with other areas of mutual interest, including critical minerals, artificial intelligence, and defense. This could be advanced through the expansion of TRUST and the creation of a dedicated roadmap for semiconductor infrastructure, modeled on the [US-India Roadmap on Accelerating AI Infrastructure](#). Parallel operationalization of INDUS Innovation, focused on industry-academic partnerships and STEM workforce development, and INDUS-X, linking critical technology and the defense sector, would further institutionalize cooperation. Companies such as Lockheed Martin, Northrop Grumman, and Raytheon Technologies already operate at the [intersection](#) of defense and semiconductors, providing natural entry points.

Policymakers on both sides should look for opportunities to fast-track dialogue and renew the US-India semiconductor partnership. With trade talks [restarted](#), the opportunity could come sooner rather than later. The 2025 INDUS-X summit, referenced in the February [joint statement](#), would provide a timely platform for launching these initiatives. Moving quickly would send a clear signal that US-India semiconductor cooperation is central to building resilient, secure, and innovative global supply chains and addressing US security and economic interests.

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